The Mining Journal
RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 703.—Vol. XIX.] LONDON, SATURDAY, FEBRUARY 10, 1849. [Price 6d.

At KIRTON TUNNEL, LINCOLNSHIRE, on the GAINSBORO' & GRIMSBY RAILWAY.
TO ENGINEERS, MILLWRIGHTS, RAILWAY CONTRACTORS, FARMERS, BUILDERS, &c.

MR. G. O. BROWN is honoured with instructions from Messrs. Stephensons', who are about completing their contracts, to OFFER for unreserved COMPETITION, BY AUCTION, at the Workshops and Premises, upon and near the KIRTON TUNNEL, on Wednesday, the 14th, and Friday, the 16th days of February, 1849, the whole of their valuable and extensive

STOCK OF RAILWAY PLANT,

which is far too large to be particularised within the limits of an advertisement, but which consists, in part, of FIVE STATIONARY ENGINES—viz.:

ONE 25-horse power HIGH-PRESSURE HORIZONTAL ENGINE, fixed on a cast-iron frame, cylinder 1 foot 4½ inches diameter, stroke 3 feet, fly-wheel 12 feet, with two cylinder boilers, each 16 feet long by 4 feet 8 inches diameter, with governors, complete, and in excellent working condition.

TWO 12-horse power (each) HIGH PRESSURE HORIZONTAL ENGINES, fixed on cast-iron frames, made by Isaac Dodds, Esq., C.E., cylinder 12 inches diameter, stroke 2 feet, one cylinder boiler each, 17 feet 6 inches long, by 4 feet diameter, with a tube in each 17 feet 6 inches long, 1 foot 5½ inches diameter, fly-wheels 8 feet 5 inches diameter—these are both in good working condition.

ONE 8-horse power CONDENSING ENGINE (marine construction), by Boulton and Watt, and on the expansive principle, in excellent condition; cylinder 1 foot 4½ inches diameter, stroke 1 foot 6 inches, fly-wheel 8 feet 5 inches, with new high-pressure cylinder boiler, 10 feet long by 3 feet diameter.

ONE 8-horse power HIGH-PRESSURE HORIZONTAL ENGINE, on a cast-iron frame, by Davy, Brothers, in capital working condition; cylinder 9 inches, stroke 20 in., fly-wheel 7 feet 2 inches, cylinder boiler 14 feet long, by 3 feet 6 inches diameter, with a tube in boiler 1 foot 5 inches diameter, and 14 feet long.

Also, winding and drawing geer, pumps, pump-trees, pipes and pump tackle for colliery or tunnel works, including flat and round ropes, skips, skip wheels, and axles, flat-ropes, 4 inches by 1 inch; round rope, 2½ inches diameter, 1 incline rope, 400 yards long, 2 inches diameter; a large quantity of metal pulleys for incline, 5 pairs iron blocks, 3 pairs wood blocks and ropes, millstones for grinding mortar, a circular saw, mill and saws, a great quantity of tunnel centers, &c.

A large quantity of MEMEL, RED PINE, LARCH, SCOTCH, and other TIMBER, in logs and scantling—various sizes and dimensions.

TEN THOUSAND FEET 3-inch PLANKS and BATTENS, in lots to suit.

TWO TIMBER CARRIAGES.

TWENTY young, strong, active, seasoned CART or RAILWAY HORSES and HARNESS, 2 neat dog carts, nearly new, 1 excellent gig, 10 single and 6 double horse carts, 20 three-wheeled carts, 200 navvy barrows, 59 brick barrows, brick tables, brick moulds, and brickmakers' tools, in great variety.

TWO HUNDRED TONS FLAT-BOTTOMED TEMPORARY RAILS.

A quantity of 1¼-inch SQUARE BARS; 100 to 500 2½ and 3 yards EARTH WAGGONS, a large quantity of old iron and old metal scraps, several hearths, blacksmiths' tools, temporary shops and sheds, workshops, workmen's cottages, and a variety of other materials, which cannot be particularised here.

Order of Sale.—The horses, harness, dog carts, and gig, carts and stationary engines, will BE SOLD on FRIDAY, with any thing that remains from the previous day.

The Sale will commence each day at Ten o'clock precisely.

Kirton Tunnel is on the Gainsborough and Grimsby Railway, 11 miles from Gainsborough, and 6 miles from Brigg, Lincolnshire.

Masborough, Rotherham, Feb. 6, 1849.

STEAM-ENGINE AND VALUABLE MINING MATERIALS FOR SALE.

MR. TIPPET has been favoured with instructions to OFFER FOR SALE, BY PUBLIC AUCTION, on Tuesday, the 20th day of February inst., at Eleven o'clock in the forenoon, at VENTONGIMPS MINE, in the parish of PERRANZABULOE, CORNWALL, the following valuable

MINING MATERIALS—viz.:

STEAM-ENGINE, 50-inch cylinder, one boiler, about 13 tons, 7 feet stroke in the shaft, with the timber and first piece of rod, &c., in very superior condition.

Shears, 16 17-inch pumps, 1 16-inch ditto, 2 15-inch ditto, 2 12-inch ditto, 3 11-inch ditto, 17-inch stuffing-box and gland, 1 15-inch doorpiece, 1 13-inch ditto, 2 11-inch ditto, 1 17-inch windbore, 1 16-inch ditto, 1 15-inch ditto, 1 13-inch ditto, 2 10-inch ditto, 3 17-inch working barrels, 1 13-inch ditto, 1 11-inch ditto, 3 16-inch plunger poles, 2 smiths' bellows, 36 and 42-inch balance-bob, bucket prongs, crab winch, horse engine, beam, scales, and weights, old iron, and miscellaneous effects.

The same may be viewed on application at the mine; and for further particulars, application may be made to J. J. Teslin, Esq., 14, George-street, Mansion-house, London; Mr. Henry Dickinson, St. Agnes; or at the auctioneer's office, Pydar-street, Truro.

Truro, Feb. 5, 1849.

HIGHLY VALUABLE COAL ESTATE, MANSION, AND LANDS, NEAR WREXHAM, DENBIGHSHIRE.

MESSRS. CHURTON will SELL, BY AUCTION, on Monday, the 19th day of March, 1849, at Three o'clock in the afternoon, at the ROYAL HOTEL, in CHESTER, subject to conditions of sale, to be then produced, all that highly valuable ESTATE, with the MANSION, FARM BUILDINGS, GARDENS, and PLEASURE GROUNDS, called

"BRYN MALLY"

(three miles from the Wrexham Railway Station), with the COTTAGES and FIELDS belonging thereto, containing about 74 statute acres.

Also, the MINES and SEAMS OF COAL and IRONSTONE underneath the estate, or about 60 acres thereof.

Also, the owner's SHARE in the PLANT and LEASES of the BRYN MALLY COLLIERY, to which a branch of the Shrewsbury and Chester Railway is brought to the pit's mouth, and is in full operation, connecting it with Chester, Birkenhead, Shrewsbury, and the principal towns in Lancashire, Cheshire, and Wales.

A plan of the estate, and section of the coal seams, may be seen, and tickets to view obtained, on application to Mr. Richard Blundell, attorney, 6, Cook-street, Liverpool.

GLOUCESTERSHIRE.—TO CAPITALISTS DESIROUS OF SAFE AND PROFITABLE INVESTMENT.

THREE of the most extensive, valuable, and best situated COLLIERIES in her Majesty's FOREST OF DEAN,

About 800 acres in extent, which are computed to contain *six millions seven hundred and twenty-one thousand tons* of coal, of the best quality.

FOR PEREMPTORY SALE, BY AUCTION, by Messrs. GRAHAM (by order of the mortgagee), at the BELL HOTEL, GLOUCESTER, on Saturday, the 10th day of March, 1849, at Three o'clock in the afternoon, subject to conditions of sale, all those

HIGHLY IMPORTANT

COLLIERIES, OR COAL-FIELDS,

known as the NEW ROAD LEVEL, the FAVOURITE, and BRITANNIA COLLIERIES.

LOT I.—THE FAVOURITE AND BRITANNIA.

The FAVOURITE is galed to the Coleford High Delf Vein of Coal, and all the other veins between it and the Churchway High Delf Vein. The BRITANNIA is also galed to the Coleford High Delf Vein of Coal, and all the other veins appertaining thereto. These two collieries contain about 600 acres of coal, and adjoin each other in the whole line of boundary. They are well situate, at a place called Brierly, four miles from Mitcheldean, surrounded by some of the best collieries in the Forest, and are in such an advantageous position that both (or the 600 acres of coal) may be thoroughly worked with the same establishment. The Severn and Wye Railway, leading to Bullo Pill and the port of Lidney, intersects a portion of these collieries within 20 yards of the intended pits, and joins the locomotive branches of the South Wales and Monmouth and Hereford Railways (for which Acts are obtained) a short distance to the east of them—thus rendering every facility required for the transit of coal to the principal marts in the kingdom,* and by an outlay of comparatively small amount of capital, the work may be put into full operation, yielding an average quantity of from 200 to 300 tons per day, producing a net income of at least £10,000 per annum.

* Extract of a report made upon the collieries, by J. Holdsworth, Esq., mineral surveyor, Billesdon, Leicestershire, June 22, 1839.

LOT II.—THE NEW ROAD LEVEL,

is galed to the Yard Delf, or Yorkley, Vein of Coal, and is advantageously situated at Bowler's Slade, near Canhope Bridge, adjoining the Severn and Wye Railway. There is a road already driven into the coal in this work, which is recently ascertained to be the nearest in the Forest, being free from sulphur, and the formation of the vein is such (having a plain rock top) as to render it workable with little expense and with less than the usual labour or difficulty. This lot will be sold, subject to an agreement, bearing date the 3d of March, 1846, to let the said colliery to Messrs. Robert and David Mushet, for 14 years, at £235 per year, and 1s. per ton for every ton of coal raised by them over and above 15 tons per day. There will be three years' rent, or £675, due at the time of this sale, which the purchaser will be entitled to receive, likewise the rent in future, until the expiration of the term in 1860. This agreement is proved to be good. The parties have worked the colliery, and are amply responsible.

Capitalists having any intention to attend this sale, may rest assured there will be NO POSTPONEMENT.

These particulars and conditions of sale may be had at the principal inns in the adjacent towns; the place of sale; of T. Gratrex, Esq., banker, Monmouth (the mortgagee); the auctioneers, Ragland and Newport; and for a view of the Map of the Forest and the plan of the collieries, apply to John Atkinson, Esq., Coleford, H.M.'s Deputy Gaveller for the Forest of Dean; or to the proprietor, Mr. William Court, Monmouth.

CARMARTHENSHIRE.—TO BE LET, OR SOLD, several SEAMS OF ANTHRACITE COAL and IRONSTONE, lying under the FARMS of CILFERY, NEW INN, FOY, and ROSEFACH, situate in the parishes of LLANELLY and LLANGENDEIRNE, in the said county. If required, the SURFACE also will BE DISPOSED OF.—The above property is within a short distance of the Kidwelly Canal, and distant from Pembrey Floating Harbour 8 miles, where the present demand for coal far exceeds the supply.

Further particulars can be obtained on application to Dr. Lawrence, Carmarthen; or to Mr. John Griffiths, Abergwilly, near Carmarthen.

Carmarthen, Jan. 20, 1849.

NORTH FOWEY CONSOLS MINE, in the parish of LANLIVERY, near ST. BLAZEY, CORNWALL.

IMPORTANT SALE.

The very excellent ENGINE, of 40-inch cylinder, on the above-named mine, nearly new, and pronounced to be a superior machine, erected under the chief superintendence of Mr. William West, together with all the MATERIALS, consisting of—

A boiler, 10 tons	Shaft tackle, complete
Capstan and shears	Whim-rope and chain
A horse-whim	4 Whim kibbles
60 Fathoms of 10-inch capstan-rope	4 Winze ditto and ropes
40 „ 9-inch pumps	50 Fathoms of ladders
6 „ 7-inch ditto	80 „ launders and stands
3 „ 8-inch working barrels	150 „ air-pipes
1 „ 6-inch ditto	1 26-inch smith's bellows
4 Clackdoor-pieces	1 Anvil and vice
3 Windbore ditto	Screwing tools and block
12 Fathoms of main-rods	Smiths' tools
40 „ iron bucket-rods	Miners' ditto
Strapping plates	Beam, scales, and weights
Bolts and bars	Leather Barrows

A quantity of old and new timber, &c.

TO BE SOLD, in One Lot, by PRIVATE CONTRACT; if not disposed of in One Lot, previous to the 7th day of March next, of which at least one week's notice will be given, the ENGINE and MATERIALS will BE SOLD on the MINE, BY PUBLIC AUCTION, in separate lots, on the 7th day of March next, to commence at Eleven o'clock forenoon.

Tenders for private contract to be made to the purser, Mr. Robert Dunn, at St. Austell; or the chairman of the committee, Mr. Ellis, of Falmouth; and for inspection, &c., apply to Captain Richards, on the mine, or at St. Blazey.

Dated January 30, 1849.

COAL.—TO BE SOLD, OR LET, a valuable COAL MINE, the property of Sir Thomas G. Hesketh, Bart., situate about five miles from the important manufacturing town of BLACKBURN, in the township of Great Harwood, in the county of Lancaster. The mine has been recently proved, and found, at 77 yards from the surface, to be 5 feet in thickness, and of excellent quality. It is commonly called, or known by the name of, the UPPER MOUNTAIN MINE, and extends over about 1000 statute acres, which will be divided into suitable lots.

A section of the borings may be seen by applying to Mr. Boosie, Rufford Hall, Ormskirk; or to Mr. Whittle, coal viewer, Charnock Richard, Chorley—to either of whom proposals may be sent.

VALUABLE SLATE QUARRY, in CARNARVONSHIRE.—TO BE LET, for such term, and on such conditions, as may be agreed upon, the RIGHT of WORKING a valuable ROCK of SLATE, on the BLAENY-CWM-FRIDD, in the parish of PENMACHNE, upon which a large sum of money has been expended in driving a level, and in other works. The metal of this rock has been proved to be equal to that of the finest Festiniog Quarries, which lie in the vicinity. The undertaking would suit a joint-stock company or a private speculator, as it can now be brought into early and extensive work, at a comparatively small outlay.

For particulars apply to Francis Hallowes, Esq., National Provincial Bank, Deigelly; and to view the quarries, to Mr. Humphrey Williams, Bleeny-cwm Farm, Penmachne.

JAMES BOYDELL, LAND, MINE, AND MACHINERY VALUER, AND AGENT,

No. 54, THREADNEEDLE-STREET, LONDON,

Has to DISPOSE OF a large quantity of STEEL and MANUFACTURED HARDWARE, now warehoused in London.

Several valuable PATENT RIGHTS, some of which have been profitably worked.

A FREESTONE QUARRY, in North Wales, from which, on account of its quality, the small cost of getting and working it, and its proximity to the sea, London may be supplied at lower prices than those now ruling for much inferior stone, and a large profit left to the proprietor.

An IRONSTONE MINE, likewise in North Wales, worked open cast, close to a shipping port, and now in profitable work.

The LEASE of a very celebrated FOUNDRY and ENGINEERING ESTABLISHMENT, on the River Dee, complete, with fixtures, machinery and tools, in working order, and ready for any parties to embark at once on building first-class iron steam-vessels, and marine and locomotive engines.

The above will be found worthy the attention of any parties desiring to invest money in a profitable business, as they will be disposed of upon terms which will ensure an unusual return to the purchasers of them.

J. BOYDELL has also at his DISPOSAL a RESIDENCE and LANDED PROPERTY in SHROPSHIRE, which is in a good neighbourhood, and which (a large portion of the land adjoining the house being of a most picturesque character, and well timbered, with a streamlet running through it) might be made a country residence for any nobleman or gentleman, such as but few in the kingdom would bear comparison with.

Particulars of the above may be had, upon application, at 54, Threadneedle-street.

TO MINERAL ESTATE PROPRIETORS, MINING COMPANIES, AND OTHERS.

Mr. C. S. RICHARDSON respectfully begs to inform the public, that being now engaged on a MINING SURVEY, in the EASTERN PART of CORNWALL, would be happy to undertake the SURVEY of any MINE and MINING GROUND, in any part of the county, during the ensuing month. Plans and Sections of Underground Workings, Drawings of, and Estimates for, every kind of Machinery, Reports on Mines and Mineral Estates, with lithographic illustrated details, Prospectuses for New Companies carefully drawn up, and every assistance rendered necessary to Mining Enterprise—charge most moderate.—Mr. C. S. R. further wishes to inform his friends, that he is prepared to undertake the ENTIRE WORKING of any MINE BY CONTRACT, according to a plan given, on due security of payment being entered into by the employers.

Apply (by letter) to the office, 6, Whitefriars-street, London; or to Mr. Thomas Carpenter, Callington; or Mr. Warne, St. Austell.

THE LATE EXPLOSION AND LOSS OF LIFE AT DARLEY-MAIN COLLIERY, NEAR BARNSLEY.

By the above melancholy accident, THIRTY-ONE MARRIED MEN and FORTY-FOUR UNMARRIED MEN and BOYS have LOST THEIR LIVES: 31 widows and 55 children have been left in a state of great distress. As soon as possible after the event, a committee was formed, of which Frederick W. T. Vernon Wentworth, Esq., of Wentworth Castle, will kindly act as the chairman; Samuel Sharp, Esq., of Darley Hall, near Barnsley, was appointed the secretary; and the Wakefield and Barnsley Union Banking Company, in Barnsley, were appointed the treasurers. The objects of the committee will be to RAISE a FUND for the RELIEF of the SURVIVING SUFFERERS, and the WIDOWS, ORPHANS, and FAMILIES of those who are dead, in addition to, but independently of, such relief as the parochial authorities and the magistrates of the district may direct to be given. The education and apprenticeship of the orphan children will be one object of the attention of the committee.

The Darley-Main Company have commenced the subscription with a donation of £200, besides having defrayed all the expenses of the funerals; and John Jeffcock, Esq., the owner of the coal-field, has contributed £100.

We earnestly request that contributions from our readers may be transmitted either to the secretary or to the treasurers, at their respective addresses before-mentioned.

COMBLAWN MINE.—At a General Meeting of adventurers in this mine, held on Tuesday, 30th of January last, at the offices of James Crofts, Esq., 4, King-street, Cheapside, London, pursuant to notice,

It was resolved,—That Capt. Lean be requested to meet Mr. Nicholls, of Tavistock, the purser, and Capt. Hosking on the mine, at an early day, for the purpose of fully considering whether it is most advisable to erect a steam-engine or additional water-power; and, if the latter, to ascertain minutely the cost of the same and all attendant expenses, and report to the committee—it being understood that, if water-power be decided upon to work the mine, it should be clearly demonstrated that there can be obtained a sufficient supply for working the whole year round.

Mr. Nicholls (an adventurer) being present at the meeting, a discussion arose, upon his offer to supply steam-power to the mine at a monthly rental; and letters from him, dated 26th and 27th January, to the purser and secretary, were read.

It was resolved,—That the consideration of his proposal be deferred, until it be shown that steam-power is absolutely necessary.

It was resolved,—That a call of £2 per share be now made, and that the purser do give notice of the same to each adventurer—to be called up by instalments, at the discretion of the committee.

ROBERT SERJEANT, Purser.

Callington, Feb. 3, 1849.

GREAT ST. JUST CONSOLS TIN AND COPPER MINING COMPANY.

These MINES are situated in the parish of ST. JUST, in CORNWALL, one of the richest mineral parishes in the county, and are bounded on all sides by rich and prosperous tin and copper mines—many of the lodes of which are known to run into these mines. The reports of the various mining captains, who have lately inspected the setts, speak of them in the most flattering and encouraging terms, and strongly recommend the working of them.

These reports are set out at length in the prospectus of the company, which can be obtained at the offices of the committee of management (which is already formed), No. 3, John-street, Bedford-row, London, where also every other information can be obtained, together with the form of application for shares, &c.

TYN-Y-CEUNANT SLATE QUARRIES, TALLY-LYN, MERIONETHSHIRE.

In 4000 shares, or parts—on the "Cost-book Principle."

Application for shares to be made on or before Thursday, the 15th February inst., to Winfield Attenborough, Esq., solicitor, 24, Lincoln's Inn-fields; or to the managers, 34, Broad-street-buildings, City, where prospectuses may be had, and the surveyors' report seen.

WANTED,—A CONDENSING ENGINE, of from 30 to 40-horse power, either NEW or SECOND HAND, suitable for pumping water. One on the Cornish plan would be preferred.—For particulars apply to J. C. Birkinshaw, Esq., engineer, York.

SECOND-HAND ENGINE WANTED.—WANTED IMMEDIATELY, a SECOND-HAND STEAM-ENGINE, of 8 or 10-horse power, with tubular boiler, and to stand upon a wooden frame.—Apply to the Black Craig Mining Company, near Newton Stewart, Scotland; or to Mr. William Muschamp, Derwent Lodge, Sunderland.

PUMP TO BE SOLD.—A PUMP, in first-rate condition, 12-inch in the bore, 4 feet stroke, with buckets, connecting-rodes, slides, and bell crank, complete. Lowest price £30.—Apply to F. Wiggin & Co., Stroud, Gloucestershire.

TO COLLIERY OWNERS, CONTRACTORS, QUARRYMEN, AND OTHERS.—FOR SALE, a QUANTITY of SECOND-HAND EARTH WAGGON AXLES, FLAT PIT ROPE, TRAVELLING and STATIONARY CRANES, IRON and WOODEN SHEAR BLOCKS, CHAIN, PICKS, PINCH BARS, HAMMERS, and WEDGES—all in excellent repair, and at extremely moderate prices, delivered.

Apply to Messrs. John Stephenson and Co., Railway Contractors' Office, Perth.

Perth, Jan. 31, 1849.

TALARGOCH LEAD MINES.—TO BE SOLD, BY PRIVATE TREATY, a NUMBER OF SHARES in the celebrated TALARGOCH LEAD MINES, which have been in operation many years, and yielding several thousand tons of lead ore per annum. The above mines are replete with every requisite for carrying on much more extensive works; to effect which, an outlay in machinery, engines, pumps, &c., to the amount of upwards of £20,000 has recently been made.

Applications, addressed to Mr. J. Jones, underground agent, Talargoch; or Mr. Rhyl, Flintshire, will meet with immediate attention.

EAST BIRCH TOR TIN MINE.—APPLICATIONS for the FEW SHARES in this COMPANY remaining unappropriated, to be made to the secretary, 2, Winchester-buildings.

RUNNAFORD COOMBE MINE.—An excellent opportunity is now OFFERED to any person wishing to PURCHASE SHARES in the above valuable concern.—Mr. BROUGHTON has FOR SALE a FEW SHARES, very cheap.

Apply to Mr. Broughton, 30, Taylor's-buildings, Woolwich.

MINING PROPERTY.—Mr. JAMES HERRON, MINE AGENT, 33, CLEMENTS-LANE, LOMBARD-STREET, has received instructions to DISPOSE of SHARES in FIRST CLASS MINES, paying regular dividends, and yielding to the purchaser from 17½ to 23 per cent. upon his outlay. He is also in a position to transact business in the following—viz.: St. John del Rey, Tamar, Treviskey and Barrier, Great Devon Consols, Aiten, Australian, Condurrow, East, Wheal Rose, and Wheal Seton Mines.

MINING OFFICES, THREE KING'S COURT, LOMBARD STREET, LONDON.—Messrs R. TREDINNICK & CO. beg to draw the attention of capitalists to the DEPRESSED MARKET VALUE of SHARES in ENGLISH and FOREIGN MINES, many of which pay dividends of from 20 to 30 per cent. per annum, whilst those on the eve of so doing are selling at corresponding low prices.—Messrs. T. & Co. continue to DEAL in every description of MINING, RAILWAY, BANKING, INSURANCE, CANAL, and OTHER SHARES.—Statistical information afforded gratuitously, upon personal application.—MONEY ADVANCED upon the above securities.

MINING OFFICES, No. 8, GEORGE-YARD, LOMBARD-STREET, LONDON.—Mr. RICHARD THOMAS (who has had 20 years' experience as a mining agent in London) OFFERS his SERVICES in the PURCHASE and SALE of MINE and OTHER SHARES, on commission. Purchases in many valuable mines may now be made at unprecedently low prices. The fullest information given (without charge) relative to mining investments and operations.

N.B.—R. T. has now ON SALE a limited number of SHARES in an undertaking offering unusual advantages, situated in one of the best mining districts in Cornwall.

Full particulars will be furnished on application.

MR. THOS. P. THOMAS, MINING AGENT, AND DEALER IN RAILWAY, GAS, BANK, INSURANCE, AND OTHER SHARES.

3, GEORGE-YARD, LOMBARD-STREET, LONDON.

T. P. THOMAS is a SELLER of SHARES in the leading MINES of Cornwall, Devon, and Wales—paying from 10 to 30 per cent.—Statistical information afforded upon personal application, or by letter.

MR. H. B. RYE, GENERAL AGENT for the DISPOSAL of MINING PROPERTIES, invites the attention of his friends and the public to the unusually FAVOURABLE TERMS on which INVESTMENTS may now be made in MINE SHARES.—Ample information (for the guidance of buyers) may be had at his offices—80, Old Broad-street.

MR. JAMES STRIDE, MINING AGENT, AND DEALER IN SHARES, 27, *SPRING-GARDENS, LONDON.*

MONEY.—MESSRS. KILLICK & CO. (late WINSTANLEY, KILLICK, & CO.), SHAREBROKERS, inform their friends and the public, they make IMMEDIATE ADVANCES, to any amount, on the deposit of English and Foreign Railway Shares, Scrip, and Debentures, upon exceedingly advantageous terms: they also BUY and SELL every description of STOCK and MINING SHARES, at much less commission than usually charged.—6, Bank Chambers, opposite Bank of England.

ASTURIAN MINING COMPANY.—Notice is hereby given, that all SHARES in ARREAR of the CALL, due on the 21st day of November last, will be ABSOLUTELY FORFEITED, unless PAID upon, with interest, on or before the 32d day of FEBRUARY inst. By order of the board,

Offices of the company, 9, Austinfriars, Feb., 9, 1849. K. MACKENZIE, Sec.

BAROSSA RANGE MINING COMPANY.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the proprietors of this company will be HELD at No. 13, Bedford-row, in the county of Middlesex, on Wednesday, the 21st day of February inst., at Twelve o'clock at noon precisely, to elect three directors, in lieu of those who retire, or disqualify—to receive the reports from the mines—and to determine what instructions shall be given in consequence of those reports, and for general business.

Feb. 8, 1849. COODE, BROWNE, & KINGDONS, Secretaries.

CONSOLIDATED COPPER MINES OF COBRE ASSOCIATION.—Notice is hereby given, that a DIVIDEND of ONE POUND per share will be PAID to the holders of certificates in this company, at the office of the association, 26, Austinfriars, on and after the 15th February next, between the hours of Eleven and Three o'clock. The proprietors are requested to leave their certificates at the office, for examination, three clear days before the day of payment.

By order of the court of directors,

26, Austinfriars, Jan. 27, 1849. WM. LECKIE, Secretary.

TINCROFT MINING COMPANY.—Notice is hereby given, that, at a General Meeting of the shareholders in this company, held the 19th day of January last, it was resolved, among other things, as follows:—

"That it is the opinion of this meeting, that, after hearing the explanations of the directors relative to the projected tin smelting establishment, that a preference in the distribution of the shares be given to the shareholders in this mine, to the extent of 3000 shares out of 5000, of which it is understood the company is to be constituted."

Notice is, therefore, hereby given, that all shareholders of this company CLAIMING to PARTICIPATE in the above-mentioned THREE THOUSAND SHARES, are to send in their applications, addressed to the directors of the company, at this office, on or before the 23d inst.; and that on such applications must be stated the several numbers of the respective certificates of the Tincroft Mining shares, in respect of which the claim is made.—For the convenience of shareholders, forms of letters of application may be had at the office.—44, Finsbury-square, Feb. 1, 1849.

UNITED MEXICAN MINING ASSOCIATION.—Notice is hereby given, that a DIVIDEND of SEVEN SHILLINGS and SIXPENCE per share will be PAYABLE at the office of the association, on and after the 1st of Feb., between the hours of Eleven and Three. Forms for claiming the dividend may be obtained at the company's office, and must be left two clear days for examination previous to payment. By order of the court of directors,

5, Finsbury-circus, London, Jan. 31, 1849. JOHN MATHER, Secretary.

ASSAYING AND ANALYSIS.—Mr. MITCHELL begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY,

23, HAWLEY-ROAD, KENTISH TOWN, LONDON,

to which address communications are to be forwarded.—Instruction in all branches of assaying and analysis as usual.

TO PUBLIC COMPANIES, MERCHANTS, MINERS, &c.—EVERY DESCRIPTION of ACCOUNT BOOKS requisite for the COUNTING-HOUSE or BOARD-ROOM, manufactured to any pattern and ruling, hot-pressed, and bound in the most durable manner (paged in type, without additional cost), on a scale of charges reduced to meet the times.—WRITING PAPERS, ENVELOPES, and STATIONERY, of the very best description, on the like reduced scale. Lists on application.

F. W. RALPH, COMMERCIAL STATIONER,

36, THROGMORTON-STREET, BANK, LONDON.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY	Royal Botanic—Inner Circle, Regent's Park	3½ P.M.
MONDAY	Geographical—8, Waterloo-place	8 P.M.
	Medical—Bolt-court, Fleet-street	8 P.M.
TUESDAY	Medical and Chirurgical—53, Berners-street	8½ P.M.
	Civil Engineers—25, Great George-street	8 P.M.
	Zoological—11, Hanover-square	9 P.M.
	Syro-Egyptian—71, Mortimer-street, Cavendish-square	7½ P.M.
WEDNESDAY	Society of Arts—Adelphi	8 P.M.
	London Institution—Finsbury-circus	7 P.M.
	Graphic—Thatched House Tavern	8 P.M.
	Microscopical—21, Regent-street	7 P.M.
	Pharmaceutical—17, Bloomsbury-square	9 P.M.
	Literary Fund—73, Great Russell-street	3 P.M.
THURSDAY	Royal—Somerset-house	8½ P.M.
	Antiquaries—Somerset-house	8 P.M.
FRIDAY	Royal Institution—Albemarle-street	8½ P.M.
	Geological—Somerset-house	1 P.M.
SATURDAY	Asiatic—5, New Burlington-street	2 P.M.
	Westminster Medical—17, Saville-row	8 P.M.

The Electric Telegraph.

At the Society of Arts, on Wednesday evening, Mr. HIGHTON read the second part of a paper "On the Progress of Improvements in the Electric Telegraph." The first portion of the paper was read at a former meeting, when the author prefaced his remarks by observing that, perfect as telegraphs appeared when Prof. Wheatsone applied the investigations of Œrsted to telegraphic purposes, and Arago's discovery of the magnetic power of soft iron, when in contact with a current of galvanic electricity, it was soon discovered that, both in pointing to, or printing letters, many imperfections existed, and, indeed, to such an extent as to render many of the plans for all practical purposes useless. After a few remarks on electricity and magnetism generally, Mr. Highton proceeded with the paper, which treated the subject under four different heads—the instruments, the conducting wires, the batteries, and the action of atmospheric electricity, lightning, the aurora borealis, and electric fogs.

The first instrument he noticed was the bell—the ringing of which, under the latest improvements of Messrs. Wheatsone and Cooke, is effected by the magnetic power of soft iron. Their latest improvement consists in removing a detent from the wheels by the momentum of a weight falling on it. The method employed by Messrs. Highton differs in the mechanism in the same manner as a watch differs from a clock—the former being capable of going in any position. The plan consists in making a spring act by a connecting rod on the circumference of a wheel, attached to which is the catch detained by the magnetic armature. The removal of this armature is effected by a magnet of nickel, instead of iron; and they recommend this metal in all step-by-step motions, as it produces none or very little residual magnetism. The paper then proceeded to the consideration of the instruments, and commenced with the most simple form of needle instrument, as introduced by Wheatstone and Cooke—the signals of which are given by the deflection of one or more magnetic needles. In this arrangement, the wire of the coil passes in every convolution twice over the middle or dead part of the magnet; in Messrs. Highton's plan, a horse-shoe magnet is used instead of a needle, and the wire is placed near the poles only.

By this arrangement, the resistance offered to the current of electricity, in having to pass over the dead part of the magnet, is entirely got rid of, and the centre of oscillation and percussion brought much nearer to the centres of gravity and motion; and hence less electric power is required, and the oscillation of the needle at the same time removed. Mr. Highton next alluded to that description of telegraph, in which the needle traverses a circular dial, on which are two or more alphabets, by a step-by-step motion, till the letter to be arrived at is reached. In these telegraphs, when one error is committed, subsequent errors are entailed throughout the message, until, by preconcerted signals, the instruments are reset by all the operators in the circuit. Messrs. Highton, to remedy this inconvenience, have added an additional electro-magnet, by which, at any instant, the step-by-step movement may be thrown out of gear, and the hand, or pointer, dart at one bound to *zero*, or the starting point. This arrangement also doubles the speed of transit, and enables any number of words, or sentences, to be added to the end of the alphabet, without increasing the time necessary to send a message by letters only, and it securely prevents one error from entailing others in a subsequent part of the message. The next class of telegraphs were those which instantly expose to view any letter, on touching a corresponding key. Previous plans required 26 wires to effect this—one for each letter of the alphabet. In Messrs. Highton's plan three wires only are required, as they make three separate deflections on each wire, and $3 \times 3 \times 3 - 1 = 26$—the number of changes required for the alphabet. The letters are shown by the single, or compound motion of three screens—no weights, wheels, or similar mechanism, being employed. The letters are painted in three rows on the under screen; on the middle screen are nine openings, showing one only of the rows dependent on the position of the screens; and on the upper screen are three openings, through one of which only can a letter be seen at once, and that letter corresponding to the one on the key touched. Mr. Highton then described the application of this plan to a printing telegraph, which would print instantly at all stations, however distant, any number of letters per minute, as fast as the keys could be played upon.

On Wednesday evening last, Mr. Highton first took a retrospective view of the former paper, and again referred to the superiority of the horse-shoe magnet; he referred to a diagram, 12 inches from pole to bend, showing that if the magnetic power at the pole was 165, at 1 inch distance it was reduced to 90, at 2 to 48, at 3 to 23, at 4 to 9, and at 5 to 6, beyond which the power ceased; this corroborated the statements in the former paper. In alluding to the batteries, Mr. Highton said, it was necessary to have the cells constructed of a perfect non-conducting substance, at the same time as cheap as could be obtained; he had tried clear glass, but found it too expensive; but having made some inquiries in the proper quarters, such as the Potteries, &c., he had at last obtained some made from common bottle glass, which proved an excellent material, and as cheap as could be desired. [Some specimens were on the table for inspection]. He had tried glazed earthenware, but found it decompose by the action of the acid. The best metals that he had yet found for the construction of batteries were copper and zinc, and the exciting solution sulphate or muriate of ammonia; he had had a battery of this description at work at the Blisworth station for nine months, and which required only twice to be replenished with the solution in that time, giving off a continuous and most regular current of galvanic electricity. The operation of the salts of ammonia were peculiar; when not at work a salt of copper was formed on the surface of each plate, but when at work this salt was decomposed, and a precipitate of pure copper formed. Mr. Highton here stated, that himself and brother were progressing in the formation of an electric battery from a gas-light, but were not prepared to make it public. They had found that heating two metals of non-equal expansion, produced an action between the particles, and a continuous stream of electricity was given off. If successful, of which he had no doubt, they should be enabled, by the aid of a farthing rushlight, to send an instantaneous communication from London to York.

Mr. Highton then showed the correctness of this statement by a fixed horse-shoe magnet placed against the sides of a small glass cylinder, in which hung a slip of gold-leaf, and, by heating the two metals by a small spirit-lamp, the leaf was immediately deflected to the side of the cylinder. He stated that a fixed magnet, acting on moveable wire, of gold-leaf, had been in use on the telegraph on the Baden Railway, for 18 months, with the most perfect success.

The author next referred to the lines of wires, the best methods of insulation of which, he thought, had yet to be adopted; in large falls of snow, the whole of the wires became cemented, as it were, in one coating of wet snow, and, of course, all conducting power was lost. He alluded to some improved modes of insulation, and stated that Prof. Faraday had discovered that all substances, even glass, were, more or less, conductors of electricity, the question being only as to time; and on alluding to the leakage on a line, he introduced a beautiful little instrument for detecting the quantity. It consisted of a close vessel, filled with water, having a glass tube rising from its upper surface, which being also filled and inverted in the vessel, remained full; on passing a current of galvanism through the water, the latter is decomposed, and the hydrogen gas gradually displaces the water in the tube. One of these instruments in London, and one at Liverpool, would exactly show the amount of leakage.

A peculiar and extraordinary feature in the powers of galvanism was next shown: let ever so powerful a battery be employed for the deflection of the magnetic needle, it would be immediately neutralised by the smallest battery possible to be constructed. This Mr. Highton showed by deflecting the needle with a battery in a very large galvanic coil, that by the counter application of a battery, consisting of a mere atom of amalgamated zinc, not so large as the head of a pin, at one end of a copper wire, the other end being scraped to a point, and both placed into about a thimblefull of dilute acid and water, this tiny affair formed a battery sufficiently powerful to replace the needle, in spite of his gigantic opponent, in a perfectly vertical position. Mr. Highton then alluded to the numerous situations in which galvanic batteries were at work, unknown to all, among which he noticed the common practice of soldering iron railings into the stone copings with lead; the consequence was, on the first rain which fell, a little water got between the lead and the iron, and there was a galvanic battery in action which, in the course of a few years, totally destroyed the lower portion of the rails, as being the most oxidisable metal. We copied from a diagram on the walls the following order of the oxidisable arrangement of the metals:—manganese, zinc, iron, nickel, lead, tin, bismuth, copper, silver, mercury, platina, gold.

Mr. Highton then came to the consideration of lightning, the aurora, &c. He said he had hoped to have entered into a variety of experiments on this subject last summer, but other avocations had prevented him; the extraordinary powers of this terrible agent required much investigation: he had known a flash, passing over a distance of only a few feet, displace 100 tons of stone fixed in a massive building, and eject it to a distance of 30 ft. He showed some specimens of metal from buildings struck by lightning, and the shoe of a man who was killed by lightning, which were very extraordinary. In the latter case, the fluid had passed through the man's body in a downward direction; and, in its passage to the earth, had forced itself through the leather, tearing and rending it in the most grotesque manner. In making experiments on this dangerous fluid, they must be conducted with the greatest care; it was an element not to be played with. He thought Franklin's kite exceedingly dangerous; he should carry a secondary current to a safe distance, where he would ignite a strip of platinum; above this, he would have a powerful rocket, in the composition of which a large amount of sulphur was employed; as this rapidly ascended, a vertical stream of sulphurous acid would be formed, which would form an immediate conductor to the whole of the electric fluid. If in this he was unsuccessful, he would attach a coil of fine wire to the rocket—the other end being fixed in the earth, which he thought would unfailingly prove a successful conductor. He had no doubt, notwithstanding its extraordinary power, man would yet be found to have it under complete control.

With respect to the aurora, atmospheric electricity, &c., Mr. Highton stated that, in October, 1847, on one occasion, all the needles were deflected over a distance of 60 miles, without any possibility of discovering the cause, and which lasted a length of time, entirely suspending all communication; the atmosphere was enveloped in dry fog, but there was no appearance of aurora, or of a thunder-cloud. On the North Western line the same effects had been felt, on one occasion from 6 o'clock in the afternoon until 3 o'clock the next morning; the needles were deflected with such force as to be audible to the attendants, and occasionally they would be still for a quarter of an hour, and again be forced into powerful action. The sky on this occasion was lurid red, and the atmosphere hazy. Other lines had also experienced similar interruptions.

Mr. Highton having stated that himself and brother had made many experiments as to the probable success of submarine telegraphs—that they had sunk two miles of wire in a canal, to ascertain the loss of power, and would be soon prepared with an efficient plan for a telegraphic communication across the channel between France and England, took a retrospective glance of the powers, uses, and value of electricity, in a general point of view, concluded his paper amid the prolonged cheers of his audience. The thanks of the society were voted to Mr. Highton, for his valuable papers.

INSTITUTION OF CIVIL ENGINEERS.

FEBRUARY 6.—JOSHUA FIELD, Esq. (President), in the chair.

The paper read was a "Description of the Abattoirs of Paris," by Mr. R. B. Grantham, M. Inst. C. E. The subject was treated of chiefly in connection with the sanatory question, at present occupying so much attention; the author being of opinion that much public benefit would be derived from the introduction of similar establishments into the City of London. The paper commenced by pointing out the advantages resulting from the method in which the butcher's trade was carried on in Paris. It was stated that this trade was regulated by a number of restrictive enactments, and conducted under the control of a Syndicate or Guild, who advised with the Government upon all questions relating to the abattoirs and markets.

It appeared from the account, that previous to the opening of the abattoirs, in 1818, slaughter-houses existed in the crowded and populous districts of the city; and that (as at present in London) the passage of the cattle through the streets, and the consequent nuisances, were found to be intolerable. The five abattoirs were designed with great care, to obviate these evils, and were generally allowed to have fully accomplished the purposes for which they had been constructed; they had been of great public service, in rendering Paris free from those nuisances which were still permitted to exist as such blots on the general cleanliness of the City of London. The abattoirs were erected within the Barriers, opposite Montmartre, Menil-Montant, Grenelle, Du Roule, and Ville Jaif, at an average distance of a mile and three-quarters from the centre of the city.

The paper, which was accompanied by detailed plans of each abattoir, and a general drawing of their arrangement, described minutely their construction, as well as the mode of slaughtering the cattle, the melting the tallow, and other details connected with the trade carried on therein. All the buildings were stated to be abundantly supplied with water, well ventilated, and kept in in the highest state of cleanliness.

Tables were given of the number of cattle, sheep, and pigs killed, and the amount of tallow melted during the last four years; and a statement was appended, from which it appeared that the revenue (derived from tolls, charged upon all the meat killed, at per kilogramme) amounted during one year to 47,609*l.* 16*s.*, that the total expenses were 4956*l.* 19*s.*—leaving a profit to the city of Paris of 42,650*l.* 6*s.*, or about 6½ per cent. upon 680,000*l.*, the original cost of all these establishment. The paper argued that if this revenue was obtained from the tolls, &c., for slaughtering meat for a population not exceeding 1,000,000 souls, who did not consume anything like the amount of animal food that Englishmen habitually indulge in, how much greater would be the profit of such establishments for London, where there was a population nearly approaching 3,000,000 of souls, in whose behalf such strenuous exertions were now making for the increase of sanatory regulations and more ample supplies of water, and everything tending towards a higher state of cleanliness and health.

In the discussion which ensued, and in which Mr. E. Chadwick, Professor Owen, Messrs. Leslie, May, Allen, Ransome, Elliott, Armstrong, and others, took part, very interesting statistical facts were given, in connection with the present state of the Smithfield market, and the evils attendant upon the animals being driven through the streets, and then killed in a state of fever, when the blood was in a condition to induce rapid decomposition of the meat, and render it unfit for food. In proof of this, it was stated that, in the summer, quantities of fine meat were frequently obliged to be thrown by the butchers upon the offal heap, within thirty hours from the time of the animals being slaughtered—putrescence being so rapidly induced by the deleterious atmosphere of the slaughter-house pervading the place where the meat was kept. Among the numerous advantages of a new and spacious establishment, like that of Islington market, to which public slaughter-houses are to be attached, would be the direct contact of the cattle sellers with the butchers, and by thus avoiding the intermediate profit of the middle men, the latter would be enabled to sell their meat in better condition, and at a more reasonable rate, to the public. The present objectionable system of Smithfield appeared to be upheld merely as a question of revenue to the city, for which the public not only paid heavily, but suffered severely by common annoyance, and by the deleterious effect on public health.

Modifications of the Paris system were shown to be perfectly adapted, even to the actual state of the butcher's trade in London; that the internal arrangements of the slaughter-houses would not, in any way, interfere with the employment of the servants of the butchers, nor could any inconvenience arise from their congregating together at such places—nor any loss from theft. All these preventive arrangements had been fully explained by Mr. Grantham, in his recent treatise on Public Slaughter-houses. The opinion of the meeting appeared to be pointedly in favour of so desirable a measure as the establishment of Islington market; and hopes were expressed strongly, that, by showing to the trade that their interest was so intimately connected with the measure, their co-operation would be obtained, to their own ultimate profit, as well as for the public good.

The papers announced to be read at the meeting of Tuesday, February 13th, were:—No. 786, "On the Coal Field of South Wales;" and No. 799, "An Account of an Explosion of Fire-Damp, at the Eaglesbush Colliery, Neath;" by Mr. J. Richardson, M.I.C.E.

MECHANICAL SKILL.—In the formation of a single locomotive steam-engine there are no fewer than 5416 pieces to be put together, and these require to be as accurately adjusted as the works of a watch.

There has been recently added to the beautiful series of cotton machinery, at the Royal Polytechnic Institution, a "ginning-machine" of Mr. Burns's improved construction, so that the visitors are now enabled to see a process in connection with cotton manufacture which the majority of those engaged in the manufacturing districts are unacquainted with. The ginning-machine is employed for separating the seeds from the cotton, and is usually performed as soon as the cotton is removed from the pods, it being then in a state most fit for the operation. To convey a correct idea also of the whole process, a quantity of cotton pods, with the cotton unremoved, have been obtained, so that the attentive observer is now enabled to see the cotton removed from the pod, the seed removed by the ginning process, and, ultimately, that selfsame cotton manufactured into thread, or yarn.

EXCHEQUER-BILLS.—The amount of Exchequer-bills to be provided for the present year is estimated at 17,786,700*l.*

A LIVER AND STOMACH COMPLAINT OF LONG STANDING CURED BY HOLLOWAY'S PILLS.—Sergeant Wilton, late of the Hon. E. I. C. service, and for nearly 25 years employed on the Bengal establishment, suffered most intensely from an affection of the liver, indigestion, and a continual sickness of the stomach, which appeared to be rapidly undermining his constitution, notwithstanding the treatment of some of the most eminent of the medical profession. On his return to this country he was advised to try Holloway's pills, and this superior medicine has effected such a perfect cure that it has astonished all who were aware of his former apparently hopeless case. Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

LITERARY NOTICES.

Materials for a New Style of Ornamentation, consisting of Botanical Subjects and Compositions; drawn from Nature. By H. WHITAKER. London: John Weale, High Holborn.

This is a work that cannot fail to be of the first utility to the architectural and sculptural student, and tend much to the legitimate and chastened improvement in the ornamental departments of those arts. The fixed orders of architectural ornament, beautiful as they are, have become, after a lapse of 2000 years, possessed of a sameness which is anything but pleasing to the eye, except under peculiar circumstances; and although, in all parts of the kingdom, many artists have attempted boldly to leave the beaten track, and pursue a path of their own, the consequence has too often been an anomaly in general effect, and a grotesqueness of detail most displeasing to the eye of taste. The author truly observes, in his introduction, that—"The splendour of colouring, and the glitter of gilding with which it has been found necessary to assist the fast declining interest of the present style of ornamentation, must have been long since, to the reflecting artist and the man of taste, the sure presage of its departing glory. Its bloom of youth having faded already in the Grecian and Roman times, it must remind them very much of decrepid old age tottering to the grave in tawdry and inappropriate habiliments." Again: "The misapplication of ornaments originally found on Pagan temples, but now made to adorn Christian churches, is enough alone to bring a blush upon the cheek of every lover of the arts; but for the art of design to remain stationary, or to retrograde, and to depend upon the genius of former times, in an age when the sciences and every intellectual study are progressing with gigantic strides, is truly derogatory to its votaries."—"To remove this stigma resting on the present generation, ancient ornamental examples must be entirely discarded, and all present ornamental combinations be made the result of a careful study from the numerous natural productions supplied by the botanical researches of the present day." The object of the present publication has been to lay before the artist not merely groups and details for copy, but some of the most beautiful objects in the floricultural kingdom, by which, on reference, he may be able to group together in endless variety for ornamental combinations. He has merely furnished new materials, containing concentrated the choice beauties scattered over botanical gardens and extensive libraries. There are 50 lithographic plates, among which are the most simple and beautiful specimens of the vegetable world, and from which the designer may cull the choicest sweets, and which may be richly grouped in a thousand different arrangements for capitals, architraves, mouldings, pateras, &c. These objects are taken from the most gaudy as well as the most humble of the products of our gardens, from which the author has given to the artist and designer a list of elements from which he may produce compositions at once new, beautiful, and appropriate. The work is got up in Mr. Weale's usual splendid style, and the lithographs are carefully and perfectly executed.

Handbook of Chemistry. By LEOPOLD GMELIN (Professor of Chemistry in the University of Heidelberg). Vol. I. Translated by HENRY WATTS, B.A., F.C.S. London: Printed for the Cavendish Society.

The translation of this celebrated work, which has long been known on the continent, cannot but be interesting to all students and readers of chemistry. The high character and distinguished position that Professor Gmelin holds at this present time would be a sufficient guarantee of the worth of any work on chemistry emanating from so eminent a member of the profession, and the Cavendish Society have displayed their judgment and usual tact in selecting this work for the benefit of their subscribers.

The present volume treats of cohesion, adhesion, affinity, light, heat, and electricity, and a short and succinct historical survey of chemistry is given in the introduction. Valuable tables will be found in this work, under the different heads to which they relate, and, being nearly all in decimals, they are readily to be calculated and easily understood. The professor not only gives his own opinion with regard to the several subjects on which he treats, but lists are given of the different works which have relation to the matter in question. As these comprise all the standard works that have been written on the several topics, the reader has the advantage, if he wishes to obtain fuller information, of knowing where to refer to. To these are appended the different papers which have been read at the several philosophical societies on the same subjects. They are all carefully arranged under their several heads, so that the trouble is avoided of seeking through a long column to discover any particular information the reader may require. The synonymes are likewise given separately, as well as the general physical properties. In the section on light, there is a graphic and plain description of both the Daguerreotype and Calotype processes, which cannot but be interesting to all readers, even though they are not lovers of chemistry, it being so plainly and intelligibly described.

The experiments which are here mentioned, are written with a clearness and easy perspicuity which render them intelligible to those who are not so learned in the art and mystery. Several chapters are devoted to phosphorescence, and the laws which regulate it are clearly and agreeably developed. An interesting section of the work is devoted to the expansion of liquids and solids by heat, classifying those from which the heat is altered by diffuse reflections, those in a high degree by some bodies, and those which are not at all affected. The tables affixed to this portion of the work seem to have been so carefully prepared, that they must have been the work of long and laborious investigation. A great portion of the work is devoted to electricity and galvanism—in fact, if published separately, it would be a complete manual of that branch of chemical science.

The materials to compose batteries are given in detail; the effect of electricity on different metals, either alone or in combination with others, or different subjects, interspersed with a variety of experiments, are carefully and agreeably related. The processes of gilding, platinising, silvering, coppering, tinning, zincing, together with a description of the different apparatus used by the several operators, is graphically described. This is accompanied by plates, which contain the necessary sketches. The several theories of the different philosophers are described, and the distinction between positive and negative electricity is clearly developed, with their relations to each other. A complete history is given of the galvanic battery, and an interesting chapter has been added by the translator, on the magnetic condition of all matter. Nor must our meed of praise be wanting to the chapter on crystallisation, which is accompanied with sketches of excellent diagrams of the different varieties. We should wish to have presented our readers with some extracts from this truly scientific work; but the information which we could have afforded space to would not have been doing justice to the utility which the book will confer on the science which it relates to. We have, therefore, preferred giving our unbiassed opinion, and we are sure we are not doing wrong in allowing the book to rest on its merits, convinced as we are that it only requires to be more generally known in England to be appreciated as it deserves; and we have no doubt that the steps taken by the Cavendish Society to diffuse chemical knowledge, will meet with that return which they so well merit, in introducing to their subscribers and the British public an author of such distinction as Professor Leopold Gmelin. The work has been intrusted for translation to Mr. Henry Watts, who has ably fulfilled the difficult duty which has devolved on him, and has added a large quantity of new matter to the original, the principal of which relates to atomic weight and density, relation of light to magnetism, the calotype process, thermography, radiation and conduction of heat, expansion, specific heat, latent heat of liquids and of vapours, tension of vapours, liquefaction and solidification of gases, development of heat in chemical combinations, decomposition of water by heat, development of electricity by the escape of high-pressure steam, Grove's gas voltaic battery, and the magnetic condition of all matter. This is kept quite distinct from the original, so that all confusion is avoided. The nomenclature appears to be somewhat difficult, but the translator promises in the second volume this will be fully explained, so that it will not be likely to create any confusion to the reader. The decimals are in German measure, but the equivalent in English is given at the commencement of the work, and where the absolute magnitudes are of special importance, the English equivalents are given in addition to the original data. Altogether the work is carefully and tastefully got up; we shall hail with great pleasure the appearance of the two following volumes, and we only regret that the cost of a book of such importance and value in so useful a sciences as chemistry, should be so great, and that this standard work cannot be published at a price which would place it more in the reach of the general reader.

Railway Locomotion and Steam Navigation: their Principles and Practice. By JOHN CURR, of New South Wales. London: J. Williams & Co., 141, Strand.

We have had, in former Numbers of the *Mining Journal*, occasion to notice Mr. Curr's pamphlets on mechanics, in which he professes, as in the one before us, to have made discoveries in the laws of mechanics totally at variance with all preconceived and really practical opinions. Mr. Curr's style of writing is egotistical and dogmatic. All he advances he must have taken for gospel, or he will "despise their dull criticism and laugh at their ignorance." He seems to forget that, although he is "54 years old, and has left a peaceful homestead in the fair clime of Australia," to teach us that all our mechanical knowledge is based in error, and has been productive of wrongly-constructed steam-ships, and a gross system of errors in railway locomotion; the engineers of England will be slow to listen to his theories, or rather dogmas; and his attempts to upset those principles of mechanics, based on which have arisen in this kingdom some of the most mighty works on the face of the earth, or that the calculations of a Hutton, or a Tredgold, which have been the basis for the past half century of all mechanical calculation, will be at once thrown aside for the principles of either an Emerson or a Curr.

We are no advocates for the nice algebraic calculations of a Lardner or a Stephenson, as to the results likely to result from the application of certain mechanical rules; we have witnessed them to turn out most woefully wrong, as in the former prognosticating that a steam-ship could never cross the Atlantic, or that of the latter, that on the atmospheric principle of railway propulsion a higher speed than 12 miles per hour could never be obtained; but if Mr. Curr wishes to impress what he considers important mechanical truths on the public mind, we think he should have written in a less derogatory and vituperative style, and his book might have been read with attention, while, as it is, he creates an enemy in every reader imbued with the standard systems of practical mechanics. His threat that, if the Government will not remunerate him for something, of which nothing is yet known, he shall offer it to a neighbouring state, is puerile, and has, to say the least of it, an appearance of mercenary motives, and we should expect, after such an avowal, the Government, nor the engineers of this country, will care much what becomes of Mr. Curr, or his book either.

In his introduction, Mr. Curr states that, at the age of 18 he was entrusted with the management of the engineering department of his father's establishment in Sheffield Park, and that he continued in the lucrative profession 16 years, but left in consequence of being decided against by three London engineers, about the construction of an engine for a vessel to ply between Harwich and Ipswich. This is also a proof of a strange irritability of temperament, for which we cannot by possibility account. There are, for all these plainly-expressed opinions, some propositions in the work which are worthy of consideration, and we only regret that the author did not confine himself to his mechanical investigation, and had omitted the objectionable style complained of, at least till he found it was treated in the manner he evidently expected it would be.

Cocks' Musical Almanack for 1849, containing all the Information to be found in every Almanack; also, the Days of Birth and Death, and the Remarkable Events appertaining to all Distinguished Musicians and Vocalists in every Age and Nation. London: Messrs. Cocks and Co., New Burlington-street; Simpkin and Marshall, Stationers-Hall-court.

Messrs. Cocks and Co. have done the musical world a service, in the publication of this elegant almanack, and which we have no doubt will be duly appreciated, and meet with that patronage which, from the evidence of the volume before us, it deservedly merits. Almost every class of society has now its nearly exclusive almanack, and we think the volume before us has appeared at a most opportune season. From the address to the public, we are informed that every available book, or authority, has been consulted to render it as complete as possible; and while it supplies all the useful information to be found in other almanacks, it affords an interesting history of remarkable events connected with music, and the most distinguished musicians of both sexes. The arrangements afford the most easy reference, as, after the usual monthly information is given on one page, there follows a complete chronological history of music, and everything connected with it, following the dates regularly throughout. At the conclusion are given lists of the members of all the musical societies of the kingdom, and the musical periodical publications, with the usual details of the royal households, reigning sovereigns of Europe, passport offices, British and foreign ambassadors, postal regulations, stamps, &c. The whole is got up in an elegant style, with superior paper and type, and we think bids fair to become a standard and highly interesting annual—in fact, a "musical gem."

GOLD MINING IN CALIFORNIA.

The accounts that during the present week have reached us from the United States, tend to show that the excitement and interest caused by the Californian gold mania has not in the slightest degree abated, but is on the increase. From these statements, we learn that vessels are daily being freighted from all the Atlantic ports to this modern El Dorado—that the arrival of a brig at the Sandwich Islands from San Francisco, laden with a cargo of gold-dust and amber, had caused a general excitement among the population, in addition to the different vessels freighted from there. One person had actually started in a whale boat to brave the perils of the ocean. About 3000 people, in the short space of five weeks, have emigrated from different localities in the States. Twenty-four companies have been formed to explore the gold workings; others are in course of formation. Vessels are daily following round the Horn; while a steady influx of emigrants in addition are proceeding over the Rocky Mountains, and the less circuitous routes. It is estimated, in six months, the number of the gold hunters will have reached to above 50,000 persons. In New York, tradesmen, who had been long and successfully established in business, were leaving their avocations, wives and families, to join in the all-exciting pursuit of gold. Every advertisement is headed "California;" and manufacturers are concocting all kinds of goods for this market. The accounts of the gold already found appears to be too extravagant to give credence to; and the extent which it is estimated the annual produce will amount to, seems almost fabulous. With a limited population, it is supposed that, in the gold region extending between the San Joaquin and Sacramento rivers—a distance extending 800 miles in length, by 100 in width—there could be exported $100,000,000 every year; and that an increased population could raise that amount to $300,000,000 annually. This region, in addition to the gold, produces quicksilver in abundance. It is calculated that California will export yearly nearly or quite 500,000 ounces of gold, 22 to 24 carats fine—some of these pieces weighing 16 lbs., and many 1 lb. Men, who commenced last June with a capital of $50, are now possessors of sums varying from $5000 to $15,000. To such a fever has the excitement been carried, that the Governor has left his post in the capital to follow the gold seekers; and the Commodore in command of the United States' squadron in the Pacific, on arriving at Monterey, found it entirely deserted by the Government officials, who had all started to the placer. In his report to the Government, he despairs for some years of being able to prevent the crews of any vessels on the coast from desertion. One account says, where head quarters may be is uncertain, whether in Monterey, Sutter's Fort, or in a four mule waggon, travelling over the gold region. Where 100 ounces troy cannot be obtained in a month, the digger starts "prospecting"—that is, looking for better grounds.

A traveller writes, on one occasion, refreshing on the side of a stream entirely unknown, or, if known, not attended to by the diggers—"One of my companions, on rolling in the sand, said—'Give me a tin pan: why should not we be cooking in gold sand?' He took a pan, filled it with sand, and washed it out, and produced, in five minutes, two or three dollars worth of gold, merely saying, as he threw both pan and gold on the sand, 'I thought so.'" The reading of this forcibly reminded us of the mythological story of Pactolus bathing in golden sands; and we began to doubt whether the lessons we had conned in our school days were fables or not. In New York, an enterprising individual has printed several thousand dollar notes, payable in San Francisco, in order to supply a paper currency for the wants of the Californians.

The *New York Herald*, in adverting to this, states that it is a novel species of goods to send there—the only extremity to avoid being Judge LYNCH and his jury, who exercise tremendous power in California, and will do so for some time to come; if the "promise to pay" is not kept, probably it would be exacted by a speedy and short process. Were we to attempt to give in detail one-half of the glowing and alluring descriptions that we have received from different sources, it would trench too largely on our space. Hitherto we have spoken but of the bright side of the picture, and could we leave the subject here, we should feel gratified in holding out such flattering prospects and bright views to our countrymen, but our duty compels us at the time we display the sunshine to exhibit the shade that often obscures its dazzling brilliancy. Notwithstanding what has been said in favour of the salubrity of the climate, it appears, from the 1st of July to the 1st of October, more or less, one-half of the people have the fever and ague, or intermittent fever. Medical attendance is enormously high; an ounce of gold for advice, and 6 ozs. of gold for a visit, cause the fever and ague to be rather expensive. Provisions are sold at the following rates:—"Dry beef, $1 to $2 per lb.; salt beef and pork, $50 to $100 per barrel; flour, $30 to $75 per barrel; coffee, sugar, and rice, 50 c. to $1; corn, barley, peas, and beans, $10 a bushel. Labour is scarcely to be obtained, and only then at the most exorbitant rate. Mechanics get $10 to $16 per day; labourers on the wharves, $5 to $10; clerks and storekeepers, from $1000 to $3000 per annum; washing was at the rate of 50 c. to $1 per garment; in fact, all kinds of provisions, and apparel of every description, were selling at enormous prices. In some districts great scarcity prevailed, in many places almost approaching to famine—spirits, and the coarsest kind of bread, being eagerly purchased, an ounce of the precious metal being given for some of the cheapest necessaries of life.

Some of the whalers had sold their provisions from 1500 to 2000 per cent. profit. In several instances, men who have been known to have amassed quantities of gold have suddenly disappeared: in fact, so disorganised had the state of society become, that all traces of law and order seem to be entirely lost, the "*auri sacra fames*" appearing to be paramount to every other consideration. Theft, fraud, and every species of violence, is daily perpetrated; nor is this much to be wondered at, when we consider the heterogenous class of people who, for the most part, compose the present population of California—men whose vices and crimes have driven them from their own countries, possessing but few redeeming qualities, and those at present absorbed by the pursuit of gain, regardless of the opinion of the world, nothing to fear from the terror of the law, or the contempt of their fellow-men, and who, thus deprived of the salutary control of force, give loose to all the bad passions which disgrace and degrade human nature. There is no doubt that, in the course of time, as soon as the population become less scattered, the Government of the United States will pursue some effective means to restore these chaotic elements, and reconstruct the disorganisation which at present exists in California. Until that period those accustomed to the convential decencies of civilised society will not only suffer great privations and hardships, but probably find their sojourn neither agreeable or safe. We, as well as several of our contemporaries, have on several occasions adverted to the prospects that English spirit and capital would receive in California; we do not wish to discourage any adventure that is legitimate, and affords a fair prospect of remunerating returns for the capital and labour expended on it; but we would advise our countrymen, of all classes, from the capitalist to the labourer, that while so many fields nearer home are opened for his enterprise, and which offer steadier, if not such speedy, returns for his outlay, to pause before he rashly embarks on a long voyage to a distant climate, where at present there is no security either for life or property. A party of adventurers were about to start for Valparaiso in the month of November, where a correspondent states the California affair had driven the people half mad; they were to dig to the depth of six feet, five yards of frontage to be allowed to each adventurer, and any person presuming to encroach on his neighbour's property to be shot. This will give some idea of the state of society, and the charcter of the emigrants to California, when such stringent rules are required previous to embarkation.

That there is gold in large quantities in California, there does not now exist the slightest doubt; but the enormous prices of provisions and manufactures have caused a great depreciation in its value. As it will be many years before steady labour in any branch of industry will take root there, it is but reasonable, and based on the doctrine of common sense, that a portion of this wealth will reach us, and give a fresh impetus to our trade and commerce. The cheap cost of the production of every necessary article of consumption in England will enable us to defy competition with any nation in the world; and if we calmly and slowly watch the progress of events, by the commercial interchange, we shall receive our fair share of the gold without incurring the dangers and privations attendant on the digging at the Sacramento. To those who are about to start there, we beg to call their attention to a report which has lately appeared, that large quantities of spelter solder have been shipped from New York and Connecticut to sell to gold hunters on their arrival. It is dropped in water when hot, by which means scales are formed almost exactly resembling the gold dust, or scales, of California: thus verifying the old adage, that "all that glitters is not gold."

To those desirous of embarking to California, a new route, practicable at all seasons of the year, has been discovered over Houston, in Texas, to Chihuaba, which will shorten the distance of the journey upwards of 400 miles; it has abundance of pasturage, while the Santo Fe road is buried, for two or three months, one or two feet deep in snow. In addition to this and the ordinary routes, the *New Orleans Courier* publishes the marvellous account of the recent discovery of a subteraneous canal, which connects the Atlantic and Pacific Oceans! This wonderful work of art is about 240 feet wide, passes under a tunnel 335 feet in height, and is filled with salt water to a depth of about 11 fathoms; it is regularly walled, and navigable for ships of the largest burthen. The whole is lighted with shafts cut through the surface above. The passage from ocean to ocean takes about 18 hours. The writer quaintly remarks, "M. Humboldt has mentioned American edifices whose architecture evinced a great antiquity, and revealed a peculiar civilivation; but his learned descriptions give no idea of such a monument." We should think not.

An enterprising individual has patented a scheme for a balloon railway, to accomplish the distance from Washington to California, 3000 miles, in three days. The inventor offers to show his model to capitalists, but modestly reserves to himself his means of sailing west, against winds blowing from the same point, and the landing of passengers in a storm, or gale of wind. On reading the advertisement of this project, we were surprised that the Aërial Transit Company were not already in the field. It appears, however, that the deposits of gold in California are not recent discoveries, the editor of the *New York Herald* having been in possession of the secret, through the means of a Captain Smith, since the year 1844; but he was so disinterested, and above the love of "filthy lucre," that he did not avail himself of the information, though he candidly acknowledges now, that he regrets he did not. Gold, and that in immense quantities, if we believe all that we read (and we must confess that we are somewhat dubious), is to be found in other localities, and this without the trouble, danger, and difficulties of a Californian voyage out and home, for murder has already been committed on the high seas, to obtain the glittering prize. By applying to "G. D." in High-street, Shadwell, information will be given, on easy terms, where gold, from an ounce to a pound weight, can be picked up in a few hours sufficient to *ballast a ship*—the advertiser not being in a position to avail himself of this valuable discovery. What important avocations must "G. D." have, which have hitherto prevented him from attaining this wealth, and how generous his nature, to dispense his information, on *easy terms*, to any one so liberal, or so gullible, as to purchase it. Had he not better receive a per centage when the gold arrives in England? Has he always been so employed as not to be able to gather a few tons of the shipload? Was he alone when he made this important discovery, or have all his companions in the secret died, leaving him the sole depository, and residuary legatee of this Tom Tiddlers ground? We cannot but believe this is some practical joker, practising a hoax to satirise the prevailing mania. We have dilated longer on this subject than was our original intention, but we should be wanting in our duty to the public, did we not at this time, while so much excitement and exaggeration are afloat, warn them of the many snares and delusions which are abroad to deceive and mislead the inexperienced and unwary. Some individuals may become suddenly rich, but we fear the great majority of the gold seekers will awake from their auriferous dreams to misery and destitution, while the course of life they have led in the pursuit, and the reckless and lawless habits they have contracted, will render them incapable of fulfilling the positions of respectable members of society, with honour to themselves, and benefit to the community.

The following letter from Admiral Hornby, with the annexed document, will be read with interest:—"Since I finished my letter I have received this paper, the truth of which is more than confirmed by Captain Courtenay, of the *Constance*, just arrived from California. I have, therefore, no hesitation in saying it ought to be made known, so pray show it wherever you think fit:—'I have now spent several months at the gold plains, during which time I have visited the principal diggings. I find these 'dry diggings' far exceed anything that has ever been discovered. At the lower mines, the miners count the success of the day in dollars; at the upper mines, near the mill, in ounces; and here in pounds. The pieces found here are of an astonishing size; the largest piece which I shall inform you of (for you would not believe me if I told you the whole truth), weighs about 13 lbs. The only instrument used at first was a butcher's knife, and the demand for the article was so great, that $40 has been refused for one. Now a pick, or spoon, or shovel, is used. The earth is taken out of the ravines, which make out of the mountains, and is carried on waggons, and packed on horses, from one to three miles to the water, where it is washed—$400 has been an average for a cartload. In one instance five loads of earth which had been dug out sold for 47 ozs. ($752), and which yielded, after washing, $16,000. Instances have occurred here where men have carried the earth on their backs, and collected from $800 to $1500 a day. Notwithstanding all this, I am confident the fountain-head has not yet been discovered. The hills in all directions must abound in gold, and when proper machinery is introduced, and the hills cut down, huge pieces must be found. News has just arrived that new diggings have been discovered on the Stanislaus River, and about 200 persons leave this morning for the new prospect, myself among the number, from whence I will write to you. Send me some papers. I would give half an ounce of pure gold for one of your valuable papers at this moment; I have not seen a paper since I have been in the gold plains. Let us have 100 copies; almost any one coming up will take them, and, besides greatly accommodating us gold hunters, will make a handsome spec. on them.—J. P. S.: *August* 15, 1848.'"—*Morning Chronicle.*

The accounts from the Sandwich Islands, of the 2d of September last, received in the early part of the week, fully confirm the report that the place was being rapidly deserted for the attractive region of the Sacramento. The first news of the discovery of gold in California arrived on the 12th August, by a brig, in 14 days, with a cargo of the precious metal. The accounts thus brought produced an extraordinary excitement, and emigration immediately commenced. The *Sandwich Islands News* says:—"The excitement which the accounts by this arrival created in our village is very great, and everybody is packing up for California. The ship, *Rhone*, and brig, *Euphemia*, have already sailed with passengers, and others are preparing to follow. The companies, or associations, are composed of old residents at the islands, and are men of steady habits. They go well prepared with mining implements, provisions, &c."

The *Honolulu Friend*, of the 1st Sept., says—"It is estimated that not less than 200 foreigners have left the Sandwich Islands for the gold mines in California. Others, it is rumoured, will soon follow. At the latest intelligence from the gold region, there was no falling off in the amount of gold that rewards the labours of the miner, but the hot season and exposure have produced a fearful amount of sickness. The probability was, that the 'fever and ague,' and other diseases, would make sad havoc among the crowd of adventurers. Intemperance, gambling, and kindred vices were fearfully rife, and attended with their usual evils and mischiefs."

The editor of the *Polynesian*, of the 2d of the same month, apprehends that the diggers will eventually have great trouble with the Mormons, who are there in great numbers, and who claim a pre-emptive right to the land. He estimates that 20,000 persons will be in the "diggings" by the 1st of January last.

MINERAL RESOURCES OF EGYPT—MORE GOLD.—A recent number of the *Bombay Telegraph* contains an account, from a correspondent at Cairo, of an expedition of Colonel Kaveloveski, engineer of mines in Russia, who was sent to Egypt, at the desire of Mehemit Ali, to investigate the mineral resources of that country, which appears to have resulted in the discovery of a somewhat productive gold district. The expedition (it is stated) which left Cairo under Colonel Kaveloveski, arrived at Cassen on the 16th March. The next day he commenced his researches, with his Siberian assistants, on the eastern side of the river Somat. The Egyptian soldiers dug wells to the depth of 200 feet, when water appeared; the sand or material was then submitted to the process of washing. In an hour's journey from the river the colonel came to a place encompassed by small hillocks, not higher than 40 or 50 feet. He immediately decided that veins of gold would be found there, and directed that they should be dug into about half their height, ordering the excavated materials to be afterwards carefully examined. He continued these operations for six or seven days, the Siberian workmen washing the sands upon a drum. On the eighth day he concluded from the results that these sands were richer than those in many parts of Siberia; for 100 poods of sand in Siberia produced but 25 habbas, whilst 100 poods were yielding at Cassen from 50 to 52 habbas. On the ninth day the colonel directed his Russian workmen to prepare the machines for washing, whilst he departed to make new researches with about 1000 Egyptian soldiers, using them occasionally for the works, and sometimes for personal safety. He made several experiments on the banks of the rivers Ramla, Dys, Gucka, and Benischangol, and afterwards at Sorgonti and Gamamil; this last river is about eight hours' journey south of Cassen. Here he found the sands considerably richer than those of Cassen. In his travels, the colonel found quantities of argillaceous iron, rock crystal, and zinc, but no other metals, nor any vestige or appearance of coal. On taking his departure from Cassen he left the works under the direction of two Arab engineers or mineralogists, who studied in Germany and Siberia. Colonel Kaveloveski pronounces his final and decided opinion that the richest sands are to be found on the eastern bank of the Somat; and he does not believe that any other place which he has searched will produce results so favourable.

IRON WAREHOUSE FOR CALIFORNIA—EXTRAORDINARY FEAT.—The want of any place to store the goods which are now going to California, determined Messrs. James Starkey and Co., who have a house in San Francisco, to send out the materials for a warehouse. A contract was consequently made with Messrs. T. Vernon and Co., for one to be built of iron, under the directions of Mr. Grantham, civil engineer. The warehouse is of iron, and the roof is similar to those used at railway stations. The sides and roof are thin, covered with galvanised corrugated iron plates. There are large folding doors in the centre, and windows in the roof. The order was given on the 5th ult., and the men were fairly at work on the 9th, and, on Saturday, the 3d inst., it was entirely erected, and ready to be taken down, having been constructed in the short space of 23 working days. It will this week be shipped on board the *Antelope* iron ship, which is to sail on Friday for California.—*Liverpool Albion.*

ATLANTIC AND PACIFIC STEAM-TRADING COMPANY.

The first meeting of parties interested in the formation of a company under this denomination was intended to have been held, at the London Tavern, on Thursday last, but was postponed, at the particular request of a gentleman of great influence, at Southampton, who is to take a lead in the management of its affairs; but it was announced that a meeting would be convened in a few days, at which the gentlemen who had agreed to become directors would offer themselves for the election of the shareholders. The object of the company appears to be to establish steamers on both sides of the Isthmus of Panama, by which means to effect the transit of passengers and merchandise to and fro between California and Great Britain. Its shares are stated to have been most eagerly taken up by the public, which induces us to hope that the names of the London directors will be of first-rate description, and satisfactory and responsible to the public, as no trading company ever had the opportunity of starting under such golden auspices as this does, since the days of the Spanish argonauts of the 16th century.

We subjoin a commentary by one largely interested in the success of the proposed undertaking:—

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The prospectus of the "Atlantic and Pacific Steam Trading Company," informs you, that the object of this company is to trade with six steam-vessels between England and California. I have no doubt that those vessels can be purchased and adapted for this station with the amount of capital proposed, as we were offered one, in every way suitable for our purposes, for the sum of 12,500*l.*, and which vessel, I believe, can still be had at a less amount; and there are numerous vessels for sale at a price much below their original cost. In the second clause it is said, "that the Post-office authorities have already been applied to for the mails." They have been applied to and the reply is, that they will be forwarded by any vessel going thence. Knowing, as we do, how well the Post-office regulations are conducted, we may rest assured that, should this company be properly carried out by a good direction, the fact of its being the most speedy and the most direct method of forwarding the mails, will soon induce the Postmaster-General to employ us; and we may presume that this will, one day not far distant, form a part of our revenue. It might, perhaps, be thought there will be few letters to carry at present; but, if our countrymen emigrate to that country, it is quite obvious that communication with England will become most important, and the more expeditious, the more profitable to the country at large.

In reading the third clause of the prospectus, it is as follows:—"In carrying out the objects of this company, the strictest economy shall be exercised. Operations are already commenced, a large steam-vessel is secured, and a great number of passengers are ready to embark." Economy has already been exercised; the preliminary expenses of this company are but trifling. There are no debts or liabilities up to this moment; and the amount of 100*l.* would cover the whole of those that have been incurred; we, therefore, start free. All the proposed capital will be expended upon the purchase of vessels, &c., upon which there can be but little loss, if any, setting aside the sums that will immediately be received for the passengers and cargoes that will be taken in the outward voyage, and paid before the vessel sails. It will hereafter be the directors' care that no waste shall accrue; and I am certain, with so able and so respectable a directory as we shall obtain, this will not occur. The prospectus goes on to say, that we have commenced operations. We had done so. We had conditionally purchased the *Tiger* steam-vessel; but we found it impossible, from the state of the law in relation to joint-stock companies, to complete our arrangements in time; and we were compelled to withdraw the amount of 500*l.* that was paid as deposit for her purchase, and wait until our company can be finally registered. The passage by sailing vessels is most tedious, particularly in rounding Cape Horn; and that by the Isthmus of Panama will be very dangerous, both to life and health, until better arrangements are made, which will soon be from necessity.

The fourth clause is as follows:—"As it is quite evident that taking out a number of men at the company's expense would be useless, as they would, immediately on arrival, mine for themselves, this company do not base all their hopes upon gathering gold, but upon the certainty which exists of passengers going thither—the company filling up the vessels with suitable goods to be exchanged on arrival for gold-dust for their benefit." If must appear self-evident, that it would be useless for this company to attempt to obtain gold by the labour of others in digging or washing; and what will be the result to all those who have taken out miners? Why, that immediately on arrival, they will leave their employers, thank them for the free passage, and then proceed to dig for themselves—the employers losing all the expenses. We, therefore, resort to a most legitimate source of profit which this new settlement now holds out to us, and that is the business of the company as a "Steam-Packet Company." If every steam-packet company flourish, when carried on in a proper manner—for instance, the West India Mail Company, the Peninsular Steam Company, and many others—some being so strong in themselves that they have no need to insure their vessels—have we not at least equal prospects? We are certain of obtaining passengers for California—for it is not England alone that is agitated by this new-found treasure, but the whole of the continent of Europe is alive; and, before long, a large per centage of our population will be seriously considering it their interest to go thither—not only because it is a land where gold is a spontaneous production, but from the advantages of the climate, which appears, from all accounts, to be of the very finest character.

There are hundreds of articles which will be necessary in this new colony, and although individuals might omit such, a board of gentleman, with a knowlege of business, in the course of their deliberations would decide what articles are most required. It is proposed that the vessels shall be fitted up under the inspection of Mr. Bowie, a surgeon to the Board of Health, in the manner most couducive to the health and comfort of the passengers, as well as recollecting the interests of the company; and it is proposed that vessels shall be purchased that are able, conveniently, to carry 200 passengers, and that each passenger shall be allowed a certain weight of luggage. The charge for passage money will be about 100*l.*; but at a great reduction from that price it will pay the company handsomely, even supposing there was nothing to be obtained from the return voyage, or the mails; and at this calculation about 20,000*l.* will be received before, or at the sailing of each vessel. With regard to the return voyage, I have no doubt that, notwithstanding the attractions at California, there will be many soon ready to return, some to make arrangements for a permanent residence, others returning with a competency; therefore traffic must ensue. It is the general opinion that California will become the New York of that side of America; and that, even supposing there was no more gold whatever in the country, the climate being of so fine a character, will induce many to reside there; and, in fact, so many have already gone that their wants must be supplied, and no doubt England will provide the greater part. In addition to gold, quicksilver has been discovered in California, and this will, probably, become an article of commerce for our vessels; so that gold, passengers, and the mails, will be the return cargoes from California; and we shall, no doubt, receive additions to them at the ports at which we shall call between California and the Isthmus of Panama, besides a proportion of the immense amount of treasure that is constantly shipped from Mexico to England. There can be little doubt, therefore, that our homeward cargo will realise within one-fourth the same freight of the outward, as we shall have the chance of passengers on this side the isthmus, at the ports at which we coal, in addition to those from the distant countries.

In referring to the sixth clause of the prospectus, viz.—"In order to induce passengers to go by these vessels, a fair rate will be charged, the provisions will be on the most liberal scale, and the greatest attention paid to the comfort of the passengers; and all those passengers who are original shareholders, shall have the amount of their shares (to the extent of five shares) deducted from their passage money."

It is to this company's interest to charge a moderate rate of passage, not only to secure immediate benefit, but in order to obtain permanent support; and that every facility should be given to emigration to that Colony, as on the peopling of that country depends our ultimate success; we must, therefore, charge at reasonable rates; we must take care there is no penny wise and pound foolish expenditure, and we must treat every passenger with extreme liberality, civility, and attention. We must also make it our business to see that they are all individually looked after, and that all the information that is in our power to afford, shall be given to them previous to their embarkation. If they remit money home to England, we shall have so far obtained their confidence, that we shall be the medium of these remittances, and upon all this some profit must accrue to the company. As an additional inducement to these last mentioned items, it is important that those persons who are our passengers, should also be our shareholders, for if they are so they will naturally add all they can to the company's gains, providing it is also to their advantage; it is therefore proposed that each shareholder who proceeds to California, shall have five of his paid up shares deducted from his passage money, and thus, in addition to this allowance, he will retain his interest in the company, and receive his dividend, like any other shareholder.

In reading the 7th clause of the prospectus—"It is purposed that the first three vessels go direct to California by the Straits of Magellan; and, after unloading, shall return to the Isthmus of Panama; the other three vessels will go monthly to the east side of the isthmus, and land their passengers, &c., who will be carried on by the corresponding vessels on the west side." Our first object will be to proceed by the most expeditious route, calling, say at the following places, to coal, land, or receive passengers:—

Madeira	about	1123	miles,	where coals may be had at	15s. 0d. or 16s. p. ton.
Pernambuco	"	1540	"	"	16s. 0d.
Rio Janeiro	"	1020	"	"	16s. 0d.
Monte Video	"	1000	"	"	16s. 0d.
Falkland Is., or Straits	"	1195	"	"	17s. 0d. to 20s.
Then through the Straits of Magellan to				"	30s. 0d.
Chiloe	"	646	"	"	
Valparaiso	"	550	"	"	22s. 0d. to 25s.
Guayquil	"	1905	"	"	22s. 6d. to 25s.
Acapulco	"	1655	"	"	27s. 6d. to 30s.
San Francisco	"	1735	"		

This is the intended ronte, subject, of course, to the very best opinions, with regard to the expense of fuel, and the time that will be taken on the voyage. It may be as well to mention, that we have been taking into serious consideration a mode of condensation which appears to be a most feasible invention; by it the inventor, Mr. Symington (whose father was the original inventor of steam navigation) informs us, the fuel may be saved to the extent of one-fourth at least, so that should we only be able to carry coals for 8 or 10 days by the present mode, by adopting this system, which will cost about 500*l.*, we shall be able with the same fuel, to steam for 12 or 13 days, which will be a great advantage in a voyage of so long duration.

After the first vessel reaches California, which would be in about 10 weeks from the time of her departure, she will, after unloading her cargo, return with what freight she can obtain to the isthmus on the west side, calling at the intermediate ports, where she will discharge her cargo, which will be conveyed across the isthmus in the most expeditious manner that the agent, who is sent out for that express purpose, can arrange. By the time she arrives on the east side, in all probability the company's fourth vessel from this port will be ready in waiting to receive cargo and passengers, and her cargo will, in the same manner, be conveyed to the west side; and so the correspondence will be arranged, that as little time be lost as possible. By this method a monthly communication could be kept up with six or eight vessels. Another strong inducement to carry out the intentions of this company, is the great probability of a railroad being formed by the Americans across the isthmus, and it is understood that the capital is already subscribed for this purpose. Upon the completion of this railroad, the success of this company becomes reduced to a certainty, as the only difficulty that presents itself, is that of conveying the goods, &c., across the isthmus; but, if I am not misinformed, a road is either already made, or in course of formation there, so that we may be independent even of a railway. The object of our agent will be, that no delay whatever takes place on the unhealthy side, and it will, probably, be necessary that this company shall have a depôt on the west side of the isthmus, to receive the goods, and secure them from injury or loss—at all events, it will be the immediate attention of the directors to decide upon these arrangements in detail, as there may be some slight disadvantage in the conveyance of the first vessel's cargoes; but we shall soon, I hope, be able to perfect the whole arrangements of this important part of our undertaking.

It is proposed in the prospectus, that a balance-sheet, showing the exact state of the company's affairs, shall be made out monthly, and published in the journals. One or other of the vessels will produce some returns every month, therefore I do not see much difficulty in carrying out this suggestion, and it will be most satisfactory to all concerned

in the company—for I cannot call it a speculation. A dividend from the profits will be at the same time declared and paid, reserving such amount as the directors may deem prudent to pay for wear and tear; but these are arrangements upon which the votes of the shareholders must be taken, and can be left for the present.

But as the manner in which the profits are to be made is the consideration, and the one that will give stability to the company, and obtain the support of the public, it is my duty to enter into that business. The first cost of the vessels will be paid out of the original capital, together with the outfit, and everything that may be deemed solid security for the money. The cost of provisions, and everything necessary for the passengers, will be deducted out of the passage money received—thus, if 200 passengers go out in a vessel, and the provisions cost 500*l.*, at 100*l.* each passenger, there will remain 15,000*l.* to pay for the coals, port dues, and seamen's wages for the outward voyage; 2000*l.* will about cover this, and there will be something like 13,000*l.* profit under the head of passengers alone. Next, we have the money received for the freight part of the cargo, which, if we do not load her on our own account, will be some thousands in addition; but if we load the surplus stowage on the company's account, that, I think, would be the most advantageous system for their benefit, as immense profits must be made from a well-selected shipment; and supposing, for an instant, that we obtain the mails for one-half of the ports at which we must touch to coal, our success is certain.

The vessels will cost somewhere about 15,000*l.* each, ready for sea, upon which outlay there will be a heavy return monthly, the amount of which almost appears impossible to tell, although it is supposed it may reach 15,000*l.* per month, or even more—a very reasonable prospect for inducing the formation of a public company.

I will now come to the last clause of the company's prospectus:—"The company's agents at California will grant bills of exchange, at 90 days' sight, on the company in London, in exchange for gold-dust, at the then current rate per ounce at California, the captain's receipt accompanying the bill." This, although last, is not the least important; indeed, I attach more importance to it than to any other of our sources of profit. It will be clear to you that those who go to California and obtain gold will remit it home to their wives, families, relatives, or friends, either for investments here, or for the purchase of goods. As there are as yet no established merchants at California, few would have confidence to intrust large sums to their care; and it is manifest the remitting of their money under the present circumstances would not be the easiest part of the business. In remitting treasure in gold-dust there are many risks to run—the risk of the sea, robbing, failure of merchants, and so on—the expense will be great, and no certainty of its safe arrival. This company would, therefore, in all probability, be the medium of remittance.

The current price of gold at California is about 2*l.* per oz.; the price here, 3*l.* 17*s.* 10½*d.* A bill would be granted, payable in London at 90 days' sight, at the rate of 2*l.* per oz, or at the market price, free on board; these bills would be remitted by the holders to Manchester, and the other manufacturing towns, in payment for goods. The company, from its position and character, would reap a greater benefit than either diggers or traders—in fact, a commission on all the business done; the profits on which is quite incalculable, as, should the gold be found to the extent that is now supposed, and one-half of it reach England, the profit will be immense. I regret having trespassed so long upon your space in explaining my views of the prospects of the "Atlantic and Pacific Steam Trading Company."

SCRUTATOR.

ANTHRACITE COAL IN PENNSYLVANIA.

The development of the coal mines in this state appears to be progressing favourably. The annexed statement will show the produce of the year 1848 from the different localities, as compared with the preceding year:—

	Schuylkill.	Pine Grove.	Little Schuyl.	Lehigh.	Other Regions.	Total.
1847 ..	1,583,374	67,457	106,401	643,973	687,505	2,982,309
1848 ..	1,652,835	61,530	162,626	680,746	694,127	3,089,228
Tons ..	69,459	86,225	36,773	6,622	1,096,929	

According to this table, it will been seen that, with the exception of the Pine Grove, there has been an increase of the production—the total excess for the past year being 1,096,929 tons above that of 1847. This coal has hitherto not been largely used in moveable engines—the great objection being, that it is necessary to employ blowing machines, to create an artificial current of air, in order to supply the deficiency in inflammable matter. In doing so, a large portion of the heat is lost by being forced through the flues with great velocity, and the boiler-plates, furnace-bars, &c., are soon destroyed. It answers, however, very well for stationary consumption of all kinds. An interesting report was lately delivered in Congress by Professor Johnson, being the result of several experiments with different sorts of coal in a stationary apparatus, prepared for that purpose.

From this we learn that anthracite, without blowers, is comparatively useless on board steamers, and on railroads it has proved a complete failure. The attention of the public has been drawn to the semi-bituminous coal, which exists in large quantities on the line of the Cumberland Canal, and the Ohio and Baltimore Railroad; it is of easy access, and has been found most available and useful for general purposes.

RAILWAY ACROSS THE ISTHMUS OF PANAMA.—The difficulties which have continually intercepted all attempts at the establishment of a railroad across this narrow strip of American land, notwithstanding such a railway would unite the Atlantic and Pacific Oceans, and give such vast facilities for British as well as American enterprise, and although numerous surveys had been made by English, French, and Austrian engineers, appear likely to be removed. We learn, by the late arrival of the *America* steam-ship, from the United States, that articles of agreement, for the construction of a railway across the isthmus, have been entered into and duly signed. The contracting parties with the Government are Messrs. Aspenwall, Stephens, and Channay, who in themselves constitute the railway company. The line is to be completed within three years. There can be no doubt as to the gold discoveries in California having spurred on the enterprising contractors; and, although it is at present impossible to say to what other adventurous speculations they may give rise, one thing is certain—that the present excitement will open up a vast extent of hitherto unexplored territory, most probably rich in mineral treasure, greatly facilitate and extend our commerce with the Pacific, by throwing open new and easier means of access, and carve out fresh channels for the profitable employment of capital and industry. We shall, of course, look out with much interest for authenticated statements of the commencement and progress of this important work.

LAUNCH OF THE FLOATING RAILWAY.—The launch of this novelty in railway engineering, for ferrying the trains over the Frith of Forth, took place on Tuesday afternoon, at Messrs. R. Napier's ship building-yard, near Glasgow. The operation excited considerable interest, more particularly as the vessel was built "broadside," and not in the usual manner, with her bow or stern to the river, it being conceived that, owing to the elevation of the ground above the high water level of the Clyde, the launch of the vessel on the broadside system could be more safely and easily effected. The method, in fact, was adopted from the circumstance of the success attending it in the case of one or two other iron vessels of 100 tons burthen, just built at Glasgow, for the Forth and Clyde Canal, and which have been launched broadside from a height of 12 feet into the river. The signal being given to pipe all hands, the blocks were removed, and the stopper ropes cut, when the huge fabric, 170 feet long on deck, by 34 feet wide between the paddles, and 10 ft. deep, strongly framed and plated to sustain the great weight of a train of loaded trucks, glided with a gently increasing velocity to the end of her ways, fell about 2½ feet to the river, gave two or three heavy rolls, and then drifted into the centre of the stream and was towed to the Broomielaw, where she received her machinery. Her engine is 56 inch cylinder and 3 ft. 6 in. stroke, working each paddle. A chimney on each side allows a clear space in the centre for three trucks loaded abreast, and the captain stands above them between the paddles to steer either end foremost. The vessel is of iron, ribbed, the plates on the bottom being half-an-inch thick. The usual baptismal ceremony of breaking a bottle of wine at the bow was dispensed with, and the vessel being a sort of hybrid, between a railway and a steam-boat, is to be known as "the floating railway."

WATERFORD, WEXFORD, AND WICKLOW RAILWAY.—Some blasting operations of an extensive character took place on Saturday last, at Bray Head, where the works for the formation of this railway are in active progress. It was necessary to remove a huge mass of rock, to do which in detail would occupy considerable time. The resident engineer, Mr. Purdon, resolved upon effecting it by one great effort, and accordingly three large drifts were made, 25 ft. in depth, 5 inches in diameter, and two supplemental ones of smaller dimensions. They were bored 15 ft. from the seaface of the rock, and about 6 ft. apart. About 450 lbs. weight of gunpowder were used in charging them, the principal part being of the quality known as Government powder, by many per cent. stronger than the ordinary blasting powder. They were connected with a 10-pair battery of Callan's, and after due precaution had been used to guard against accident, they were fired, and an immense displacement of rock was effected. The explosive noise was not loud but rumbling, and the spails were not driven any distance. It was found on examination afterwards that 10 feet to the landside of the drifts were carried away, and fissures extended much farther, which will enable the workman to remove the rock with the crowbar. The length of the rock displaced was 45 ft., the breadth 25 ft., and depth 25 feet, which gives an idea of the cubic contents. Mr. Copeland, the local engineer, was the operator. Several minor blasts were made, showing the activity with which obstacles formerly considered impracticable to be overcome, are disappearing. The long tunnel at the southern end of the head can be passed through walking upright, and the scene of these interesting engineering operations is well worthy a visit, under favourable circumstances of weather. The original intention of crossing the deeply-indented ravines made by the sea, by means of bridges, is abandoned, and all will now be filled up at an incredibly less amount of expense, but with equal stability and safety.

DUBLIN AND BELFAST JUNCTION.—The portion of this line now ready for opening, between Drogheda and Dundalk, was inspected by the Government officer on Saturday last. He found the line in efficient order, and will recommend that the usual certificate be issued by the Commissioners of Railways, authorising the opening. Thursday, the 15th inst., has been fixed upon for the public opening of the line for traffic; and we are happy to find that the directors have considered it more advisable to contract for the working than to incur the expense and responsibility themselves. They have contracted with Mr. Dargan to provide the entire working stock, and to receive payment by a mileage rate. The locomotives and carriages already provided by the directors will be taken by Mr. Dargan; so that no loss will be sustained by having them thrown on their hands. Mr. Dargan has also contracted, on similar terms, to work the Dundalk and Enniskillen line, between Dundalk and Castleblaney, which, it is expected, will be ready for opening on the 15th inst.

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BY J. Y. WATSON, ESQ., F.G.S.

EASTERN DISTRICT.

SOUTH TAMAR SILVER-LEAD MINE, in Beer Ferris, is situated immediately to the south of East Tamar Mine, described last week. Part of the sett, consisting of 528 fms., extending to the banks of the Tamar, is held on lease from the Earl of Mount-Edgecumbe, for 21 years, from the 30th April, 1846, at 1-20th dues. Another part of the sett, extending 880 fms., or a mile under the River Tamar, is held under lease from the Duchy of Cornwall, at the same dues, and from the same date. Conducted on the Cost-book System, in 9000 shares, 11*s.* 6*d.* per share paid. Committee of management in London, Sir Hyde Parker, Bart.; O. H. Smith, Esq.; William A. Thomas, Esq.; John Browne, Esq. Secretary, G. Kieckhoefer, Esq.; the manager at the mine, James Wolferstan, Esq. In July, 1846, South Tamar was taken on lease by the same parties who then held East Tamar, and divided into 9000 shares, upon which upwards of 8000*l.* was subscribed, to erect powerful machinery (a 60-inch cylinder engine, &c.), and clear up old levels. The company then becoming insolvent, for reasons stated under the head of East Tamar, the present company became the purchasers of the whole concern for 3050*l.*, and 9*s.* per share, on 9000 shares, subscribed, giving in addition to the amount of purchase-money, 1000*l.* working capital, which has been spent in opening the mine, and a call of 2*s.* 6*d.* per share (1125*l.*) was made last week for future operations, making the amount paid up 11*s.* 6*d.* per share. It may appear an objection to some to have a mine in so many shares, but the old company having been formed in 9000, it was found more convenient to have the present in the same number. The shareholders, however, are few, 5000 shares being held by the members of the committee alone, and others hold 1000 and 500 each. As we stated last week, this mine formed part of the old Beeralston Company's works, and during the extravagant career of that company yielded the greater part of their returns, the ore being remarkably rich for silver. Owing to various causes, too, the Beeralston Company were unable to obtain a lease of the ground under the bed of the river, towards which their rich courses of ore were running, but which, for a mile in length on the course of the lode, has been granted by the duchy to the present party. The shaft is down 100 fms., and Mr. Wolferstan reports, that in a week the 90, 80, and 70 fm. levels will be in course of working under the river; the 80 is already yielding lead, worth 80 ozs. of silver per ton. It seems to be the general opinion that few mines offer the encouraging prospects of South Tamar, though the proprietary calculate calling for 10*s.* per share during the present year, to erect drawing machinery, and to thoroughly lay open the mine. The expenses of management (an important feature, and too often overlooked in the formation of new companies) is extremely moderate, being 50*l.* per year on the mine, and 50*l.* per year in London.

[To be continued in next week's Mining Journal.]

Mining Correspondence.

ENGLISH MINES.

ASHBURTON UNITED.—Mr. A. Murray, jun. (Feb. 5) reports—The prospects of these mines are steadily progressing; the number of men raising tin on tribute is increased from 50 to 60, and upwards. The tin ground, on the new north lode, is proved to be continuous, to the extent of 1000 to 1500 fms., from the 55 fm. level to the 45 and 35 fm. levels, at Hobson's and Parry's shafts, besides other cross-cuts in these levels and in the 25 fm. level—on the completion of which, it will probably be found to extend to a still greater distance; for, since Mr. Murray's inspection, Captain Kernick writes, that the most eastern cross-cut, in the 45 fm. level, had cut the same lode, from which he had assayed prime samples of tin; but the lode not being fully cut through, he could not give its dimensions; this lode holds its value, as previously reported, of 2½ cwts. to the ton of stuff, and is often found to yield 7 or 8 cwts. to the ton. The few pitches on the south tin lodes are not particularly worth mentioning, except that Penrose and partners have cut a promising shoot of tin ore in the back of the 45 fm. level, on the north middle lode—some samples of which realise 10 cwts. to the ton; and Caunter's pitch, on the southernmost tin lode, has recommenced working on advantageous terms, after being one month idle; it was expected that 3 tons of tin would have been produced from this pitch, but the tributers struck for longer time and higher terms. The copper lode to the south has not been touched since it was cut; but it is intended, as the spring approaches, and when the tin-works fully realise themselves, to commence to clear up an old shaft on the copper lode, and sink below the adit to the point where the branch of rich copper has been cut. The wheel pit for the iron wheel is finished, and the wheel, capable of working 15 to 20 heavy stamps, is in process of erection by Capt. Kernick, who expects it will be ready in the course of another fortnight or three weeks, with such additional power, a considerable number of additional tributers will be employed, for whom the discovery of new pitches is occurring each week.

AYLSBOROUGH.—Capt. John Spargo (Feb. 7) reports—This mine is looking well. We have cut the lode in the 10 fm. level, worth 15*l.* per fm.; the lode carries a beautiful prian, and we are daily expecting a greater improvement. The work at the stamps turns out well. We have about 1 ton of tin again almost ready for market, of good quality. Our last batch brought 51*l.* per ton, and we expect this will far exceed the last. There is every reason to expect, as soon as we have extended on the lode, so as to get backs, we shall greatly increase our sampling.

BARRISTOWN.—Capt. T. Angove (Feb. 3) reports—The men in the 16 fm. level end have been employed the last week in holeing a winze to the back of that level for ventilation, consequently there has been no discovery made in the end. We have driven 6 fms. south in the adit end from where the lode was cut off by the slide, and we have now a branch which I think will lead into it. The pitches are producing rather less ore than for some time past. The stopes in the back of the 16 fm. level are rather improved, producing about 6 cwts. of lead per fm. The winze in the bottom of the adit level is suspended for the present, on account of the great increase of water. We have about 8 fms. to drive in the 16 fm. level end to unwater it.

BEAM (TIN).—Mr. Walter Treleavin, the purser (Feb. 6) reports—The tribute pitches and tutwork bargains continue to produce tinstuff of a favourable character—there is no doubt but perseverance will be rewarded with success. In my last report, I named the quantity of tin for the month to be upwards of 6 tons; I have much pleasure in being able to say the quantity was sold by private contract, on Friday last, to Messrs. Daubuz, at the Higher Blowing House, St. Austell, and it was more than 8 tons. The tin from this mine was sold for 61*l.* 5*s.* to 61*l.* 10*s.* per ton. The sump-shaft will be divided and cased to the 32 fm. level, to enable us to put down the kibbles by the water drawing machine to that level in a fortnight—we shall find the tin ground in that level to be more productive than in the levels above. All the tin sold by the present adventurers has been raised above the 20 fm. level. The deeper levels are likely to be more productive than any of the upper levels have been.

BEDFORD UNITED.—The managing agent (Feb. 3) reports—The shaft is made complete down to the 103 fm. level; the whim part has been enlarged from the 35 fm. level downwards, and the whole put into a thoroughly secure and fitting state, and made suitable for the larger kibbles which will be used on and after Thursday next, the day fixed on for setting the new steam-engine to work. The cross-cut south, in the 103 fm. level, has been extended 2 fms. 9 in. from the shaft; the ground is tolerably easy for driving, being a good description of killas; the present stent is 2 fms., by six men, at 8*l.* per fm. The 90 fm. level east has been extended 2 fms. 2 ft.; the ground is improved for driving, and the capels of the lode appear to be wearing out. There is more water issuing from the side of the level, and other indications, which warrant the expectations of the lode becoming very shortly productive. The present stent is 2 fms., by six men, at 9*l.* 10*s.* per fm. The 80 fm. level east has been extended 2 fms. 2 ft. 6 in.; there is no alteration in the ground in this end, and we still continue to drive by the side of the lode; the present stent is 1 fm., by six men, at 10*l.* per fm. The 70 fm. level east has been extended 1 fm. 4 ft. 10 in.; there is a slight improvement in the appearance of the lode in this end, but not sufficient to call for any particular remark at the present time; the stent set yesterday is 2 fms., by 4 men, at 8*l.* per fm. The following pitches were also set:—In the back of the 90 east, to four men, at 5*s.* in 1*l.*; four at 6*s.*; four at 11*s.*, and eight at 13*s.* 4*d.* In the 80, eight men, the 70, four men, and the 58, two men, at 13*s.* 4*d.* in the 1*l.* The other pitches were not reset, but continued for another month. We have amply sufficient ore broken for our next sampling, and a great part is already dressed. ——Capt. James Phillips (Feb. 7) reports—At Wheal Marquis the ground in the 103 fm. level south continues favourable. On cutting into the caples of the lode, in the 90 and 80 fm. levels east, we find them to be hard, and have, consequently, determined on driving a few fathoms further before we cut through the lode. The lode in the 70 fm. level east is from 2 to 3 ft. wide, producing good stones of ore in places. We intend setting our steam whim drawing-machine to work to-morrow.

BWLCH CONSOLS.—Capt. M. Francis (Feb. 5) reports—We let our bargains on Saturday last, and the men have got to work regularly to-day. Owing to its still being precarious as to frost, I will enter into no calculation as to the ore to be dressed this month, but I hope it will be upwards of 100 tons. The castings from Messrs. Harvey and Co. have arrived, and are now on their way from Aberystwith to the mines. The 25 fm. level west is in a very good course of ore. The 28 east is not quite so good as it has been. The 15 east is driving in a lode, with some pretty good stones of ore through it, and a branch for about 3 in. wide, containing very good ore. Everything connected with the mine and works is proceeding satisfactorily.

CAMBORNE CONSOLS.—Capt. Francis Daniell (Feb. 8) reports—I have the pleasure of informing you, that the contrivance which we have adopted for draining the water from the course of ore discovered on Martin's lode in this mine answers admirably, and we shall get the water out, so that the men may commence sinking the winze by to-morrow morning, and, from present appearances, I reckon upon six men sending to the surface from the winze alone about 20 tons of ore, worth from 9*l.* to 10*l.* per ton, in this month, and as our cost for a considerable time will be confined almost entirely to labour, I need scarcely tell you that the ore which will be thus raised from this spot alone will meet the current cost of the mine—a result which, perhaps, from our quick movements for some time past, has not been anticipated by many. The course which we have taken for keeping out the water from the ore ground, will, for two or three months perhaps, entail a monthly cost of about 4*l.* 10*s.*—a very trifling water-charge, compared with the generality of mines. In the summer months it will be perfectly dry 40 fms. under the adit, and, therefore, the extra expense is a mere trifle. The adit end, upon Martin's lode, is improved considerably in the last fathom, and as we can now calculate on meeting our expenses, I propose to resume the driving of it, especially as we have a fine goesan lode before us, which may be intersected by the adit 40 fathoms deep. The lode, which we take to be the south entral lode in Dolcoath Mine, and upon which we have been driving in the adit level, has not as yet answered our expectations; but we have very encouraging appearances in the cross-cuts in the 20 and 40 fm. levels, where we have been recently finding copper ore, lead, iron pyrites, &c., in the fissures of the rock, rendering it probable that we are approaching a metallic vein; for although there are several known lodes before us, the ground having been but partially explored, we are quite uncertain as to how soon we might lay open a lode. I have before informed you, that our buildings are nearly completed, and that the other necessary outlay, consequent upon the clearing of the mine, has already been incurred—so that our expenses for some time to come will be confined to opening and exploring the several lodes already discovered, and others which we may find in the progress of the cross-cuts.

COMBLAWN.—Captain J. Hosking (Feb. 4) reports—I have sent a note to Capt. Lean, to know what day he intends visiting Comblawn Mine; and, if all be well, I intend going to Tavistock to-morrow, to see Mr. Nicholls, and inform him of the appointed time. I intend making a sketch of the different lodes and cross-courses, and will endeavour to point out (at the meeting) the best mode of working the mine, after suitable machinery is erected. My plan is to sink the engine-shaft direct to a 60 fm. level on the cross-course, prove the main lode only in a 40 fm. level, and drive north in a 60 fathom level on the cross-course, to intersect the old mine, and all the lodes in the sett. If we can get a steam-engine at a moderate rental, it would be far better than erecting a water-wheel, for with steam-power there would be little or no hindrance, and I firmly believe that we could sink and drive more ground in one year than we could in two with water-power. We have been engaged in making a good road for bringing materials, &c., to the mine, and it will be completed in three or four days from this date.

CWM ERFIN.—Capts. A. Francis and S. Nicholls (Feb. 2) report—Our 50 fm. level east contains a little ore, but is not so good as when you last heard from us; the stope over the 20 fm. level is looking well; the rise over the 20 fm. level west is at present poor. All the stopes over the 10 fm. level are yielding about 8 cwts. of ore to the fathom; we are sinking under the 10 fm. level, on the north-east lode, which continues to yield about half a ton per fm. We are now erecting our wheel, and are proceeding with our dressing as fast as we possibly can, but we find the quality of stuff we are now raising requires more jigging hutches and other dressing apparatus to keep us clear.

DEVON AND COURTNEY CONSOLS.—Capt. N. Seccombe (Feb. 6) reports—In the end driving west in the 40 fm. level, on the grasan lode, the lode is 20 in. wide, composed of mundic, spar, and spots of ore. In the end driving east in the 50 fm. level, on the south lode, the lode is 2 ft. wide, producing mundic, spar, peach, and some small bunches of ore on the south part of the lode.

EAST BIRCH TOR (TIN).—Capt. T. Moyle (Feb. 7) reports—The lode in the engine-shaft is 5 ft. wide, with tin throughout—the same as last reported; we have sunk 4 fms. under the adit level, and have been drawing the work from the shaft with the tackle; but we have now got the horse whim up all complete to draw with. We finished the sinking of the bob pit yesterday, and began to wall it up; we expect to have the engine at work next week. We shall now commence stamping out our ore raised from the engine-shaft. The tributers have stamped out all their tin, and are dressing it up as fast as possible. It will be sent to the smelting-house in a few days.

EAST CROWNDALE.—Capt. S. Paull (Feb. 3) reports—Diamond's engine-shaft is sunk 2 fms. 3 ft. 6 in. below the 17 fm. level, and bearers and cistern fixed for standing lift, which will be completed by the middle of next week, when we shall again resume sinking. Thomas's lode, in the adit level driving west from Harris's shaft, is much improved since my last report. The lode is composed of peach, prian, mundic, a small quantity of white iron and tin, and worth about 40*l.* per fm.; the stopes in the back of this level are also looking better, the lode not being so much mixed with killas as when last reported on; it is composed of jack, killas, mundic, and tin, worth about 25*l.* per fm. Everything in our dressing department is going on to my entire satisfaction, and the quantity of tin getting ready for the burning-house is fully to our calculation. —P.S. I am glad to state, that it is decided to proceed at once with the erection of a burning-house. We shall begin on Monday morning next.

HOLMBUSH.—Capt W. Lean (Feb. 6) reports.—The ground, in cutting through the cross-course, in the 183 fm. level, west of the diagonal shaft, is still very hard (compact capel, without a fissure). The cross-cut north, in this level, we have for the present suspended, and removed the men with two others to drive a cross-cut in the 120 fm. level, east of Hitchens's shaft, to intersect the south part of the lode; after this is effected, we shall resume the driving of the former. The lode in the 120 fm. level south is 4 ft. wide, composed of can and stones of lead, saving work. The lode in the 110 fm. level south is 3½ ft. wide, composed of quartz, prian, and stones of lead, saving work, and opening tribute ground. The flap-jack lode, in the 100 fm. level east, is 20 in. wide, composed of mundic, spar, and stones of copper ore, with favourable ground for exploring. We have again within the last week met with another small cross-course dipping east. In the tribute department, I beg to refer you to the setting list, which is also sent you by this post.

KIRKCUDBRIGHTSHIRE.—The agent (Feb. 3) reports—The lode in the 50, east of Stewart's, is 2 ft. wide, a kindly spar, with spots of ore. The lode in the 40, west of Keith's (which we have resumed driving again), is 2½ ft wide, with good stones of lead in the middle and back of the end. The winze in the bottom of the 30 east has a lode 18 in. wide, with good spots of ore, mixed with jack, in it; the lode in the 30 end east is much the same, but turning its head more to the eastward. The bunch of ore we cut last week in the 20 end east, has again left us, although the lode is still large and very kindly.

LAMHEROOE WHEAL MARIA.—The agent (Jan. 30) reports—In reply to some questions raised by the committee upon the amount of the last cost sheets, I am fully aware of the importance of keeping, and have ever studiously endeavoured to keep the cost as low as possible. One great reason of the increased cost of last sheet was the necessity of fixing the plunger-lift at the engine-shaft, and which is now complete, and we are now consequently enabled to resume its sinking. It will also be equally necessary to fix another at the south shaft, which, when complete, will enable us to sink uninterruptedly the two shafts at a regular monthly cost of about 180*l.* The amount of these plungers is so much addition to the value of the stock. I must, however, further observe, that the 360*l.* named is not only to sink both shafts, but includes fixing ladder ways, and dividing the whim from the engine-shaft; the two shafts have been set to sink 10 fms. deeper in each at 18*l.* per fm., or 360*l.* in the whole.

LEWIS.—Captain S. S. Noall (Feb. 3) reports—The lode in the 70 east, on the south branch, is worth 5*l.* per fm. for tin; in the 70 west, on the south branch, the lode is producing some good stones of tin, with indications of a great improvement. The south branch on the 60 east is 2½ ft. wide, worth 12*l.* per fm.; in the 60 west, on the south branch, the lode is worth 5*l.* per fm.; in the winze sinking below the 60, the lode is 3 ft. wide, worth 30*l.* per fm. The lode in the 50 west, on the south branch, is 8 in. wide—saving work for tin; the lode in the winze sinking below the 50, on the south branch, is 2 ft. wide, worth 10*l.* per fm.; the lode in the 50 east, on Cock's branch, is 2 ft. wide, worth 8*l.* per fm.; in the 50 west, on Cock's branch, the lode is 1 ft. wide, worth 4*l.* per fm.; the lode in the 50 east, on Ralphe's branch, is 1 ft. wide, worth 5*l.* per fm. The lode in the 40 west, on the south branch, is 9 in. wide, opening moderate tribute ground; the lode in the 40 east is 2½ ft. wide—saving work for tin. In the 30 west, on the south branch, the lode is 9 in. wide, worth 8*l.* per fm.

LLWYN MALEES.—Capt. H. Francis (January 31) reports.—Last night we cut a fresh stream of water in the bottom of the shaft, which will prevent us proceeding deeper until we have put a lift of pumps into it; this water will, no doubt, lead us into a good lode again in sinking. The lode in Oliver's winze is quite as good as last reported, and I think, if anything, better; we have very strong ore indeed in this winze, which is somewhat deeper than the London shaft. The 14 fm. level west is in a lode 18 in. wide, and will produce upwards of a ton of ore per fm.; according to present appearances, we are likely to have good ore in this level for some length.

PENCRAIG-DU AND CAENANT.—Capt. M. Francis (Feb. 6) reports—The course of ore in Pencraig-Du adit has increased in size and value; the lode is now orey for 3 ft. wide, and yields 1½ tons per fm. The rise at Caenant has been communicated to old ore stopes from the middle level, and we hope to raise ore profitable in this mine in future, and to be able to dress some of the best ore at Pencraig-Du.

SOUTH WHEAL MARIA.—Capt. George Francis (Feb. 8) reports—We continue to drive by the side of the lode in the 20 fm. level east, where the ground is still favourable; there has been 8 fms. driven since we last cut through it, where it is composed of mundic, peach, &c., with copper ore interspersed throughout, and is from 3 to 4 ft. big, with regular walls, and underlying about 2 ft. in a fm. We have not yet seen the counter lode, its underlay must be much more than we at first calculated on, otherwise we should have intersected it ere this.

TRELEIGH CONSOLS.—Capt. W. Symons (Feb. 3) reports.—At Garden's engine-shaft, below the 113, the shaft men have not commenced sinking; they have been putting in pentlouse, &c., in the 113 fm. level, west of Garden's shaft, the lode is 4 ft. wide, producing very good stones of ore, and more promising than last week. In the 100, west of ditto, the lode is 15 in. wide, with occasional stones of ore. In the 80, west of north cross-cut, we are cutting to a north lode. In the 60, west of Garden's shaft, the lode is 15 inches wide, with stones of ore only. The 20 cross-cut, south of Wheal Parent, to cut the lode in the 20 east, on a branch which is from 1 ft. to 15 in. wide, but poor. The winze below the adit, on Wheal Parent lode, is 18 in. wide, with good stones of ore.

WEST WHEAL JEWEL.—Capt. R. Johns (February 5) reports—In the 70 fm. level, west of Williams's cross-course, on Wheal Jewel lode, the lode is looking more promising for ore than when last taken down—drove last month 1 fm. 1 ft. In the 57 fm. level, west of Williams's cross-course, on the same lode, lode unproductive—drove last month 1 fm. 5 ft.; in the 57 fm. level east, on the same lode, lode worth 3*l.* per fm. —drove 1 fm. 2 ft., sunk in the bottom 3 ft.; this level is suspended, and the sumpmen put to sink in the bottom to hole to the pitch in the back of the 70 fm. level; in the rise in the back of the 57 fm. level, west of Williams's cross-course, on the same lode, the rise is suspended until the end in the 47 is driven over it, which will be done this month—rose 1 fm. In the 47 fm. level, west of Williams's cross-course, on the same lode, lode 2 ft. wide, worth 8*l.* per fm.—drove 1 fm. 3 ft. 6 in. In the deep adit, west of Hodges's cross-course, we have cut Williams's cross-course, and have set to drive south to cut the lode—drove 2 fms. 6 in. In the 30 fm. level, west of Quarry shaft, on Tolcarne tin lode, lode 2 ft. wide, producing little tin—drove last month 1 fm. 2 ft. Tregoning's shaft, sinking below the 12 fm. level—sunk last month 1 fm. 3 ft.; Tregoning's shaft, sinking below the shallow adit—sunk last month 2 fms 3 ft. In the deep adit west of Quarry shaft, on Tolcarne tin lode, lode 2 ft. wide, producing stones of tin—drove last month 1 fm. 4 ft. 9 in. The stopes in the back of the 12 fm. level, east of Pryor's winze, on Tolcarne tin lode, working on tribute, worth 9*l.* per fm.; the stopes west of this winze, in the back of this level, working on tribute, worth 18*l.* per fm.; the stopes, in the bottom of this level, east of Tregoning's shaft, working on tribute, worth 15*l.* per fm.; the stopes in the bottom of this level, east of Tregoning's winze, working on tribute, worth 20*l.* per fm.

WHEAL BENNY.—Capt. J. Tabb (Feb. 6) reports—In the 80 fm. level north of Ford's shaft, we have met with a branch, and shall continue on this level 2 fms. in the same direction; after which, I intend opening westward, and drive until I get under that part where the lode looked so promising on the surface; in the cross-cut south the ground is improved for driving—being of a lighter killas. I measured the distance yesterday, and find we are 15 fms. north of the lode, supposing the lode drops perpendicular, and am daily expecting to intersect it, as we cannot be far; when cut, I will write immediately. I will forward you all particulars about Lamheroe by Monday or Tuesday next.

WHEAL MARY ANN.—Capt. Peter Clymo, jun., reports—In consequence of the misfortune in breaking the main rod in Trelawny's engine-shaft, the water has been thrown in upon us, so that very little work has been done below the 40 fm. level since last report. The lode in the 40 fm. level, south of Barrat's shaft, is 4 ft. wide, and will produce ½ ton of lead per fathom; the stopes in the back of this level are producing a fair quantity of lead. Pollard's shaft is sunk 5 fms. under the 40 fm. level north; it is 2 ft. wide, and will produce 15 cwts. of lead per fm.; the lode in the same level south is 2 ft. wide, and will produce 4 cwts. of lead per fm. The lode in the 30 fm. level south is 6 ft. wide, producing ½ ton of lead per fm.; the stopes in the back of this level are producing a fair quantity of lead. The lode in the 15 fathom level south is very similar to my last report.

WHEAL SARAH.—Captain J. Spargo (Feb. 7) reports—The lode in the

20 fm. level south is just as last reported—very good work: if any alteration, it is rather improved; in the north end the lode is looking promising, but we have not yet commenced driving. Our setting day was on Saturday last, when we set eight pitches on tribute, all above the 20 fm. level. Our south wheel works well. We have commenced dressing, and the lead turns out equal to our expectations.

WHEAL TRELAWNY.—Capt. John Bryant (Feb. 5) reports—In consequence of breaking the main rod in Trelawny's shaft, the water rose 3 fms. above the 42 fm. level, which we are forking out again with all possible speed; the men are working in the 42, and we hope to get the 52 drained by to-morrow, and by Thursday, probably, we shall see the bottom levels. The stopes in the 42 fm. level are producing a fair quantity of ore. We have 12 pitches in working above the 42 fm. level, on tributes varying from 4l. to 7l. per ton for raising the ores. At north mine, Smith's shaft, being again dry, we have resumed sinking it under the 30 fm. level, where the lode is worth 12l. per fm. The 30 fm. level, north of this shaft, is progressing satisfactorily; the lode in the end is 18 in. wide, composed of spar, can, and lead, worth 6l. per fm. I find the ground in Trehane 45 fm. level is at present favourable, and, if it continues, I expect it will be into our boundary in about six weeks, where we shall be able to take it, and drive through our north mine—this, being 15 fathoms under our 30 fm. level, will be of great importance.

WHEAL VINCENT.—Capt. John Spargo (Feb. 7) reports—We are driving on the south lode, and are breaking some good work for tin; and, as we get farther to hill, we expect much greater improvement. The ground in the lobby is favourable, especially in our close drivage. We shall commence stamping shortly, and hope the weather will continue favourable, so that we may get on with erecting our machinery, &c. I see a plan by which we can get up our lobby to the wheal-pit quicker than was anticipated a few weeks since.

WHIDDEN.—Mr. A Murray, jun. (Feb. 5), reports—Since the minute exploration carried on at the surface by Capt. Kernick, we have been enabled to ascertain the existence of a north lode near and forming almost the same back with the lode we have been prosecuting in our two adit levels, expecting, as we came under the summit of the hill, that they would lead to shoots that had evidently gone down there; however, as the lode proved unproductive, a re-exploration has taken place to explain the apparent anomaly, and in going through the ground with Captain Kernick, Mr. Murray is quite convinced he is correct in his views, that the lode, or lodes, from the backs of which the old miners took away so much tin, are still in existence to the north of the levels. The shallow workings over the entire hill, from which these conclusions are drawn, were opened by Capt. Kernick, per advice of Mr. Henry Caunter, the landlord; they are 6 to 7 fms. deep, and stoped away for great lengths and considerable breadth, and as many fathoms below as the water would allow. The underlie of the lode, taken from the supporting arches left, which are productive of tin, with the distances in connection with the levels on the plan, give evidence of its being a different lode, and the cross-cut from the shallow adit, which will come 16 fms. under these old workings, is already in a different stratum, lighter and more congenial, with branches of mundic and prian leading towards the north lode; this cross-cut is sett at 3l. 10s. per fm., and may cut the north lode in about 8 fms. more driving. The remainder of the men, who were sinking Caunter's shaft below the deep adit, but which was suspended until the pumps are attached to the wheel, are now cross-cutting near the surface, to ascertain the position of the other north lodes. These explorations, there is every reason to believe, will elucidate the present obscurity, for it is a fact beyond doubt that vast quantities of tin were formerly raised from the shallow workings at Whidden, and smelted and sold in Ashburton: and, doubtless, the deep levels were undertaken at different periods to come under those workings that had proved so productive, and to drain them, but the projectors took another lode in mistake, which, from the angle of its dip, easily deceived them, as it had the present miners.

FOREIGN MINES.

COPAIAPO MINES.—*Mining Report for October :—*

Copiapo, Nov. 29.—*San Pedro Copper Mine.*—This mine presents nothing new as regards its prospects, and our force has been exceedingly limited here during the last month, for two reasons—first, the difficulty of procuring native labourers, which arises from the increased demand that there is daily for more labourers in the new rich silver mining districts; and, in the next place, my having taken a captain and four of our miners to assist in the carrying on the more important operations in the new mines, where I have purchased an interest for the company. Most of the exploring has been suspended for the present. We are, however, driving the 5 fm. level west, in which we have a very good lode, 10 inches wide, that will produce about 30 per cent. I am led to hope that this is a new shoot of ore, and that it will grow wider as we advance into the hill, particularly if we do not come in contact with any hard bars of ground. The stopes in the back of this level have yielded well in the past month, and promises to continue good for several fathoms; the vein is 8 inches wide, and rich, but hard, as is the ground about it; consequently the produce is comparatively small, which we naturally expect to correspond with the difficulties, or facilities, we may meet with in breaking it. The stopes in the back of the 10 fm. level are looking well; the lode is 14 in. wide, and rich throughout—ore not less than 30 per cent. These are all the points now being wrought, but hope to have a few additional hands shortly.

Checo Copper Mines.—It affords me pleasure to inform you, that in the 12 fm. level, to the east of the new shaft, we have a good lode of ore 2 ft. wide, and more than 40 per cent. We are driving west also on this lode in the same level, and have a very pretty branch of ore about 10 in. wide, which, I think, will increase in width, or at least there is every probability of it, for the lode has two well-defined walls, that appear to be opening as we advance. We have also a good lode to the west of the Victoria shaft in the 30 fm. level about 15 in. wide, of excellent quality. The winze sinking below the 20 fm. level, to the east of this shaft, produces some stones of ore occasionally, and has a pretty appearance; I have still great hopes of finding something good here. The winze sinking to the east of Harman's shaft, has reached the 40 fm. level, and still continues to present the most encouraging appearance. In many instances it had produced large stones of ore, of the most cheering character; and, for richness and size, I have seldom seen their equal, which has set us all on the tiptoe of expectation that we were nearing a large and rich branch of ore; but hitherto it has been marked by a series of delusive deceptions and signal defeats—so much so, that I have twice or thrice determined to abandon it at the end of the month, if it did not give more generously to meet the expenses of sinking, when another large stone would present itself of 2 or 3 cwts., as if thrown there by chance, and unconnected with any regular branch. In fact, it has been one of the most unaccountable phenomena, or, if I may call it so, freaks of Nature that I have met with. I have, however, determined to give it another month's grace, and then, if it does not declare itself more decisively, and to advantage, to relinquish it, resigning the pursuit of such a flattering and deceptive object to some one else, or to a future day. The stopes in the bottom of the 12 fm. level, although not very gay, are producing some very good ore, but present no novelty that calls for any future remark at present.

Esperanza Copper Mine.—We are still sinking at two different points; in one of these we have a very fine lode, 6 feet wide, of ore that will produce 12 per cent. of green carbonate of copper, but this is a quality will not pay, still it is too good to be abandoned, as I have great hopes of its improving as we go down, and in the last month it has given a ton or two of very rich ore, which we have found in scattered stones, as it were, throughout the vein. The lode in the adit level is also large, producing some few stones of fair quality ore, but not of sufficient quantity to assist us much in the produce as yet. The winze in the eastern part does not look quite so promising as it did last month, owing to its being disordered by a cross-course; but we hope to find it soon in a more settled and productive state.

San Juan Copper Mine.—We have not been able to do much this month, on account of the great scarcity of labourers, and although the lode is large, say 5 ft. wide, nearly the whole of which is ore of 10 or 12 per cent., I have deemed it prudent to suspend it for the present, for the following reasons—viz.: the hardness of the lode, the excessively high price of powder, and the scarcity of labourers. Produce at San Pedro for Oct., 32 tons; Checo, 33; Esperanza, 2 = 67 tons. The *Catherine Jenkins*, with 562 tons of copper ore, sailed from Copiapo on the 16th November.

Silver Mines.—Hallada Silver Mine.—This is the first mine found in the Mineral of Tres Puntas, in which, as I before advised you, I had bought an interest for the company. We have here commenced sinking at six different points, about 50 varas apart, in two of which we have broken down a portion of the lode. The ore, weighing 45 quintals, was carried to the amalgamation works in the city, and produced 179 mcs. of silver; since which we have been discovering the vein, which, on an average, is 2 ft. wide, and exhibits, in every part where we have broken it, fine spots of silver, which leads me to believe, that when we have broken it down (which will be in a few days), it will yield a large quantity of very good ore. We have more than 60 varas of vein discovered. The reason for our not having broken it before is, that we had not any secure places for depositing the ore.

San José del Carmen.—This is the second mine found in the mineral or mining district of "Tres Puntas," where the company has a large interest. On this mine we are sinking two diagonal shafts on the lode near the centre of the shaft, which are now about 5 fms. deep each. In the southernmost (for the vein runs north and south), we have broken down the lode, which averages from 2½ to 3 ft. in width, and has produced about 700 quintals, or, say 34 tons, of ore, 18 quintals of which have yielded 3·917 marcs of silver, or say 400*l.* for each ton of ore; the remaining 16 tons is also very rich, and will be amalgamated in a few days. The lode in the north shaft has not yet been broken down; but I believe it will produce more ore than the vein in the south shaft did, and superior in quality. I consider this lode to be worth at least 2000*l.* per fm.

New Mines.—On the 27th inst I purchased for the company, in the Mineral Tres Puntas, the following shares in the different mines—viz.: 6¾ barras in Carmen Alto; 7 in La Plomesa; 7 in La Colorda; 9 in La Mercedes—this is in all 22¾ barras, nearly enough to make up an entire sett; all the above-named mines are looking well.

[From the *Plymouth Journal.*]

THE BIRCH TOR AND VITIFER MINES.—The flat-rods have been fixed from the wheel near Walled shaft to Prideaux shaft, and there is water power thus obtained equal to sinking this shaft to the 80 or 100 fm. level. The shaft now is about 3 fms. under the deep adit, and at this place the lode is worth full 15*l.* per fm. The rise over the end in the adit level is producing a little tin, rather more than it did at our last report. The new engine-shaft has been sunk about 5 fms. under the Vitifer deep adit, and it is expected that the lode will be met with here in the course of this week. In this part of the mine this lode has never been seen under the adit level, and its intersection at this point is looked forward to with great interest by the miners of the district, being on a lode on which the ancients have done more work above the adit level than on any other lode in Europe. These workings may be traced upwards of two miles, and for full half a mile there is a guif, caused by the whole of the back of the lode having been carried away, together with some of the country, at places from 100 to 200 ft. wide, and a quarter of a mile long. The power for sinking the new engine-shaft is obtained from the large stamps wheel, and is sufficient to keep the water to the 100 fm. level. The cross-cut to intersect the north lode is progressing most favourably, being on the soft cross course, near which the large courses of tin raised from the Birch Tor lode were discovered—about 15 fms. is spent in a month. The question of dues has been settled, and a perpetual sett granted to the company at 1-35th dues for tin raised from the Birch Tor lode, and 1-40th dues from tin obtained from any other part of the mines. The Birch Tor lode, which has proved so productive during the last 150 years' working, lies about 60 fms. to the south of the north lode, and 40 fms. to the north of the Old Vitifer or main lode.—A letter was received on Wednesday night from Capt. R. Dunstan, in which he says, "I am happy to inform you that we have cut the lode in Dunstan's shaft, and it is a very good lode." This is the Old Vitifer lode.

PLYMOUTH WHEAL TEOLAND.—A rise from the back of the 34 fm. level, in the old south lode, was commenced on Monday last, for the purpose of cutting the lode above the adits; the 3 fms. of ground will be taken down, and the lode seen within a fortnight; there is a stream of water full 2 in. in diameter, highly impregnated with mineral, pressing up under the slide with such force as to rise from 4 to 6 in. above the floor of the level, clearly indicating that the lode is still north of the end. In order to cut this lode, a line of flat rods is laying in this level, and a diagonal shaft is to be immediately run down under and parallel with the slide; it is expected that this lode will be cut within a month, but there is no certainty of its being seen within that time. The new south lode is decidedly improved since our last; it has taken its underlay north, and is quite regular; the stamps show that the stuff drawn produces double as much tin per fathom as it did a month since. The burning house is ready for use, and the tinstuff which had been stocked on account of its mixture with mundic will be shortly returned.

PLYMOUTH WHEAL TEOLAND EAST.—The arch of tinstuff left by the ancient tinners above the adit has been taken away; this is the only one met with in clearing upwards of 200 fms. of level, the whole of the backs having been taken away—the pare are now put to drive south through the lode, which is tinny, to prove it; the lode at surface is 16 ft. wide, and carries a very good gossan.

WHEAL ASH.—There is a little copper mixed with the mundic—the lode retains its size, and the water coming from the bottom of the shaft within the last fortnight has become very coppery.

DEVON AND COURTENAY CONSOLS.—The lode in the 40 fm. end, driving west, is a little more orey than it has been, and on the south lode there is a little branch of good ore running alongside of the mundic.

EAST CROWNDALE.—The Rix-hill lode is large and tinny throughout; by stamping a large quantity of stuff, good may be done here.

WHEAL FRANCO.—The 62 fm. level is improved; the 47 fm. level is progressing slowly; it is about 1 fm. behind the ore ground in the 32 fm. level.

WHEAL ANDERTON.—The lode in the 90 fm. level will be cut in the course of a fortnight; the other parts of the mine are looking well.

FINANCIAL REFORM AND THE MINERS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The miners of England are bound to support the *National Budget* presented to the Liverpool Association by Mr. Cobden, *on the principle of self-preservation.* It contains this brief, but comprehensive, sentence—"*The duty on timber and wood must be wholly abolished.*" This is a matter of vast importance to the *miner*, who now labours under the disadvantage of having, with a mineral of low per centage, to compete with foreign ores of high produce, in *addition* to *being taxed* for all the *timber* which he consumes; whilst the foreign miner has his timber cheaper and DUTY FREE. This evil is felt most acutely in our (the Tavistock) district, where the lodes are very large, and, therefore, require much timber to keep the levels ahead.—A MINER: *Feb.* 8.

WHEAL MARY ANN MINING COMPANY.

SIR,—I was at Wheal Mary Ann Mine on Saturday last, and learned from the agents there, that the lode south of Pollard's shaft, in the bottom levels, is about 4 ft. wide, and very productive of lead. I cannot but express my surprise that the South Trelawny adventurers do not drive *east* and intersect this lode, instead of driving a cross-cut *west*. In my opinion, they may continue driving this level even so far as the town of Liskeard, and never cut the lode in question; and I am astonished at any one recommending such an insane proceeding. For my part, rather than be a party to such a shameful waste of their money, I would immediately advise the adventurers to at once draw up the materials, let out the steam, and send the men to California.—JAMES CLYMO: *Feb.* 7.

KESWICK COBALT MINES.

SIR,—An erroneous and exaggerated opinion appears to exist regarding the value of this property. If any one will look at the accounts of the different cobalt works in Europe, he will find there are at present more mines in operation than are requisite to supply the present limited consumption of the article. At this present time there are large quantities of smalts at the Modum Works, near Kongsberg, in Norway, stocked for want of a market. These mines have been many years established, are under efficient superintendence, are paying profits, and have all the requisite machinery and works for reducing their ores; yet when, about six weeks since, one of the largest holders was in London, offering them for sale, he could not find any one in the trade, either here or in Birmingham, willing to make an offer. Failing in this, he endeavoured to form a company, and though furnished with the best and most influential introductions, no one would, for a moment, entertain the idea. The establishment of the Snarum Company, in a locality not far distant from Modum, and whose sett extends many miles, and where any quantity of the ore could be raised at a very low expenditure, has been repeatedly offered for sale during the last three years, both in England and Germany, but without the slightest success—the most strenuous exertions of the proprietors being unable to dispose of them even at a rate much below their supposed value, and this because they have been unable to find a market for their produce.—C.: *London, Feb.* 5.

A BRIEF HISTORY OF THE KESWICK MINES.

SIR,—In your Journal of last week, in an article headed "Mining Notabilia," there was an extract from the communication of some correspondent connected with the Keswick Mining Company, which considerably amused me, and it must have similarly affected all of your readers who know the history and present condition of this adventure. I had believed that the tide of infatuation, which flooded the imaginations of many of those engaged in this speculation, had ebbed to that decent and reasonable elevation of hope which all men will and may fairly indulge in, when they look forward upon the vista of some golden project. The *furor* of adventure seems about to be redirected towards mines; and it, therefore, becomes you, Sir, as the censor of the reckless multitude, to invoke that discretion which alone can enable them to separate the chaff from the wheat—to ascertain where claims are exaggerated and exorbitant—and to vindicate those which are not justly appreciated; and since much of the information essential to so desirable an object must necessarily be derived from the press and its correspondents, permit me to present to the public a brief history of this company and an account of its present condition.

The adventure, as it will presently be shown, originated partly in folly. A gentleman, well known for his blandishments and business-like habits, and not a little ardent in his dreams, undertook, while under the influence of that spell, which a glowing description of these mines naturally enwrapped around his imagination, to establish a company. He broached the secret of his plans to two or three acquaintances equally sanguine, and, as it is generally pretty easy in these matters, he soon divided the responsibilities; and this present scheme, embracing a cobalt mine and two lead mines, was born into the world of speculation.

It is necessary to state, before we continue our narrative, that these mines had been previously worked; and, either from unskilful management or the unfruitfulness of the mines themselves at that time, were closed by the original lessee, whose only reward appears to be, that he has partly paved the way to that goal which he saw but afar off. His fortune—if report be true—was wrecked on the rocky strand of Stoneycroft. However, hope is not completely denied him; for since it was necessary for these new adventurers to get his sanction to a transfer of the leases, and this was obtained on the condition that the works already erected be purchased, and that he should have an interest still in the mines, he may reap some of the fruits. The shares of this company consist of two classes—1200 *free* shares, and 1000 shares to be paid upon—each nonimally 10*l.* It is conducted upon the Cost-book System, or rather a Cost-book System—the usual system remodelled, upon a plan peculiar to this company, of omitting some of the essential laws and customs which form part of the constitution and principles of the old system.

These free shares were snugly appropriated by the originators of the company; and the *other* class were ultimately disposed of to different parties—the burden of furnishing the capital for carrying on the operations at the mine being thus liberally deposited upon the shoulders of the "sheep-men." A short time sufficed to embroil the company, and such a storm arose, in consequence of the protests of the more reflecting shareholders against this monstrous appropriation, that the directors took refuge behind a barricade of promises to disgorge some of that lion's share, which they had hoped to digest in peace. A portion of these free shares was given up, and divided among the "sheep-men," as agreeably to their rights, and the proportion of their shares, as the disturbing fractional elements admitted.

The sum of 60,000,000*l.* per annum!! was vouchsafed to the expectant proprietors. But will it be credited, that the cobalt mine was, at this period, *literally valueless?* This, the arguments of an active shareholder will prove. At the commencement of this adventure, Mr. Bankart had no connection whatever with the company. This gentleman, some years back, obtained a patent to secure to him the benefit of a new and economical method of smelting copper ore. His plan was found equally applicable to the smelting of this cobalt ore; moreover, it was ascertained that his system of reducing the ore was the *only one* that could be adopted, so as to leave a profit from the sale of the production (the oxide of cobalt), the old plan of smelting being far too costly. His patent was secured. The cobalt ore *then was not worth the pick that stoped it.*

The redemption of the national credit would have been a magnificent object to contemplate. However, hope shed its lustre now, and the most wary proprietors began to regard Mr. Bankart's connexion as propitious. Midsummer last brought promises that the mines were on the eve of full operation. But, alas! nothing has been done—the mines have yielded *absolutely nothing!!* It will naturally be asked, how is this? Are these mines so worthless? No! The intrinsic value of these mines is, without a doubt, considerable. There lies the ore, or it has lain for the greater part of a year, inviting the company to turn it into gold. Whence arises this delay? Why, directors, managers, and the worthy patentee, Mr. Bankart, have occupied the past valuable time, and still continue consuming the present, in an internicine war of accusations and threats, carried on with an ardour that would entitle them to the honours of belligerent, squabbling washerwomen, or the plaudits of Billingsgate.

Every meeting, general and special, has been devoted solely, almost, to these conflicts—every meeting for nearly a twelvemonth. And it is very doubtful whether these scenes have been more ludicrous or disgusting, if the exhibitions, on the part of the audience, of alternate mirth and displeasure are any criteria. The causes of these differences are manifold; but as I am possessed of no such idiosyncracy of character as to lead me, for my amusement, to choose the crushing of flies, I shall forbear elaborating and exposing the manifold absurdities through which these mines have been kept in abeyance. It is sufficient to state, that these mines are, at present, perfectly fruitless; but if properly conducted, and under the management of abler hands, and with a unanimous desire to test the value of this property, I verily believe that a fair dividend would be the result—of nothing like that Californian proportion which your correspondent, alluded to in my introduction, would like the public to believe. There are some shareholders who wish to dispose of their shares; and I boldly suspect the correspondent, whose letter you quoted from, approximates pretty nearly, according to the vernacular of Capel-court, to a "bull."

The management, moreover, is without system. Things seem done but to be undone, and the confusion that prevails seems but to increase; calls succeed each other with the most alarming rapidity, since the whole capital must shortly be called up, and no prospect that the works will any the sooner be brought into operation. If the managers of this company were not notorious for their uprightness and commercial status in the world, probably those shareholders, with more speculative imaginations, would not fail to fix upon the conduct of those intrusted with the property of the company, motives not superlatively ingenuous. Bad management and bad tempers, mutual suspicions and unceremonious accusations, have produced the evil that now exists. The boards at Wallbrook have sustained this campaign for many months—how long exactly I know not; and the only slaughter effected is the sacrifice of all confidence; and, though there has been ample time for the thermometer of enmity to cool down, yet there are no indications of a favourable change in the atmosphere generated within the walls of the boardroom. The evil still exists, and the money of the shareholders, like seeds in winter, lies buried in the levels at Causey Pike; and, I hope, like them, to germinate and yield forth, some day, a fair increase. Cobalt, doubtless, is there, and is of some value, poor as the ore is; but will that cobalt walk out of the bowels of the earth of itself, jump into the smelting furnaces, repudiate its connection with the dross that clings to it, make its way to the market, negociate for a price, and send the purchase money for us blue-looking "sheep-men" to divide? Nevertheless, certain parties are acting as if they anticipated such a miracle.—INFELIX PARTICEPS: *Feb.* 1.

THE KAPUNDA COPPER MINES, SOUTH AUSTRALIA.

SIR,—Observing, from time to time, that you take a great interest in the mining operations in South Australia, and that in your Journal of last week, reference was made to the death of Capt. Richards, mineral agent to the Kapunda Mines, I think it but a tribute due to the memory of a most honourable and able servant to forward you the report of the state of the Kapunda Mine, by his successor, Capt. Pascoe, and also an extract of a letter received from Capt. Bagot forwarding the same.—R.: *City, Feb.* 8.

Glen Osmond Mines, Oct. 13.—The Kapunda Copper Ore Mines are situated in a porphyritic clay, which contains a large per centage of carbonate of lime—a character of country that will produce minerals in any part of the world; the surface dimensions of which are 180 acres of land, held free of royalty, and extend on the course of the lodes 550 fathoms. In these mines eight metalliferous lodes have been discovered, varying in width from 10 in. to 3 ft., and are composed of copper ore, with quartz and gossan in small quantities; and several shafts have been sunk at depths from surface varying from 3 to 30 fms. The two engine-shafts are sunk and secured, and the pitwork put down in the first order—one to the 20 and the other to the 30 fm. level; there is also a whim-shaft well timbered to the 30 fm. level.

Stockyard shaft is down to the 20 fm. level, and is 3 fms. to west of the Stockyard lode; the lode is 10 in. wide, composed of iron and copper ores. The main lode, in the bottom of the 15 fm. level, north of the main engine-shaft, for about 140 fms. in length, is about 15 in. wide, composed of copper ores. There is a branch, 5 fms. west of the main lode, 6 in. wide, composed of copper ores, with grains of mundic. The second lode east of the main shaft, for a considerable length, is 2 ft. wide, composed of copper ores, with quartz and mundic. The third lode, east of the main shaft, is about 3 ft. wide, composed of copper ores and quartz—ground soft throughout the mines. Mitchell's lode is about 7 fms. to the west of the main shaft, and is about 3 ft. wide, composed of quartz, gossan, and prian, and will come to the main lode about 3 fms below the 30 fm. level. The main lode in the south end, in the 20 fm. level, is 3 ft. wide, composed of copper ores, producing 7 tons per fm., worth 20*l.* per ton. The lode in the rise in the back of the north end is about 3 ft. wide, composed of copper ores. I should say you have 100,000*l.* worth of ores standing in the backs of the 30 fm. level. Your engine-house is well built, the engine well put together, judiciously placed, and works as well as any engine I ever saw. I must say these mines were well selected, and there is much credit due to Capt. Richards for the able manner in which he arranged his plans, and carried out his operations.

J. B. PASCOE.

The following is an extract from Captain C. H. Bagot's letter, enclosing the foregoing report, dated Adelaide, Oct. 15:—The great lode was cut in the 30 fm. level early in Sept., and was found large and full of ore of excellent quality; we have since been driving on the lode to open it; in doing so we got much fine ore, and the soft black mixed with grey, which we calculate will dress to 30 per cent. From the extent of ground opened in the 15 fm. level (140 fms.), and the underlay being so great as to give a back of 19 fms. to the 30, we have at least 2000 fms. of a back now nearly laid open. The men, who are always sanguine, speculate on 6 tons per fathom, but half of that will satisfy me—at all events, our prospects are most favourable; if ever any doubts existed as to the productiveness and stability of the mine, they are now removed.

THE TAVISTOCK DISTRICT indisputably stands the most prominent for its copper mines of any in England; its character has been revived, and revived only by the Great Devon Consolidated Mines. Many of the old miners still dwell with delight on the times when Gunnis Lake, Liscombe, Empam, East and West Creber, and Crowndale, all on a master lode parallel to the Devon Consols and Bedford United Mines, were turning up their vast piles of copper—making "the land merry," and the adventurers rich. These mines, in the opinion of able miners, ought not to have been stopped. On the back of the lode was a good gossan, then came large branches of mundic, and, under these, courses of ore. After these had been sunk through, there were again floors of mundic, and, doubtless, had "the sump" passed through these, and the levels been extended, the mines would have been now working. Wheal Friendship, too, in this district, has been for many years producing large quantities of ore, and has returned 300,000*l.* profit, and she still continues to pay good dividends. The lodes in the Tavistock district vary materially from those in the west, being very large. This may, perhaps, be accounted for by the fact, that they run from granite to granite, from the Heignston range to the Dartmoor range of hills. Experience proves that in the killas between granite large deposits of ore are found. This district, too, abounds with slides and cross-courses, which are always looked on as favourable indications by the miner. Under slides in Devon Consols, we understand, that some of the richest branches of ore have been discovered. The Wheal Franco great cross-course is very large, and traverses the country from north to south, producing, we venture to think, an uniform heave of 178 fms. on all the lodes which it intersects; this, at least, has been the case in two instances coming under our notice. We cannot close these few remarks without alluding to the more cheering prospects which are opening to the miner by the improved price of tin and copper, and also referring to the smelting company lately established in Bristol, and the tin smelting-works in course of erection at Beer, under the talented and energetic management of Mr. Percival N. Johnson, of Ward House, as indicative of still brighter times.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

IN SOUTH WHEAL JOSIAH, since my last report, we have explored about 3 fathoms of the lode, and find, as we open on it, every foot improves; the lode is now 5 feet wide, spotted with ore in different parts, and veins of ore running through the capels; and I should think, from the present appearance, we shall not drive many fathoms before we may expect saving work. I have to-day seen a most splendid pile of ore drawn up from the same lode, in Maria, a little to the east of where we are now working, and hope shortly to have a similar one in South Josiah.

At HAWKEMOOR, they have cut the lode in the 20 fm. level bottom, and cut into it 2 ft. 6 in., through a fine course of ore, and have not found the south wall.

STRAY PARK shares are in demand at advanced prices; also West Caradon are enquired after.

WHEAL HENRY has some improvements in the mine, and several shares have been sold. In South Josiah several shares have been sold at 2*l.* 10s. each.

BEDFORD AND KINGSETT looks well—indeed, in the Bedford lands north we are taking up large stones of lead, weighing from 5 to 1 cwts. downwards. At the south, in the Bedford land, we have come into an east and west lode, carrying every appearance similar to Great Wheal Friendship—stones of copper and mundic; but the slide has so disordered the lode, which is 4 ft. wide, that we cannot say definitely what it is likely to be; we are driving on the lode, and a month may tell a tale. On the lode west we are now in the capels, and expect to cut it every day—much water, &c.; this is in the Bedford land. The lode we set out for 14 months since has not yet been cut, and is supposed to be 5 fms. off—indeed, no one can tell. We are about to build count-house, &c.

WHEAL BLENCOWE MINING COMPANY.

A general meeting of adventurers was held at the mine, on Tuesday, the 30th Jan., to audit the accounts for September, October, and November, when the following statement was presented:—Balance due purser, 31st October, 181*l.* 10s.; Sept., Oct., and Nov. cost, 337*l.* 14s. 9d.; merchants' and other bills, 99*l.* 2s. 2d.=618*l.* 6s. 11d.—By tin sold November 3 (less dues and carriage), 83*l.* 18s. 1d.; ditto, ditto, December 30, 171*l.* 15s. 9d.; arrears on calls, 12*l.* 1s. 11d.; received on account of call made 31st October, 166*l.* 11s. 2d.—leaving balance due purser, 184*l.* A call of 15s. per share was made. The following report, from Capt. John Dale, was presented:—

Jan. 30.—We have now the gratification of being able to report that we have cut the most southern east and west lode in the 30 fm. level. At our last meeting, I expressed a hope that we should meet with it in about two or three weeks from that time, but in that I was disappointed—the underlay of the lode proving to be much greater than I expected. As we cut the lode only on Thursday last, there has, of course, been no time to open upon it; all, therefore, I can as yet say respecting it is, that it is about 2 feet through, contains some good tin, and its character, as well as that of the stratum of ground adjoining it, is precisely the same as in the 15 fm. level; we have, therefore, but little reason to fear that this lode, when we have extended our levels east and west on it, will yield an abundance of tin. Within the last five or six weeks, we discovered a most important improvement in the old north and south lode, going north from the 15 fm. level; it is about 5 feet through, and appears to be quite regular. Of its value you will be best able to form an opinion, by my telling you that six men broke upwards of 90*l.* worth of tin from it during the last month, and it continues up to the present time equally productive, and we have every reason to believe it will hold down, and intersect the east and west lodes. It was decided at the last meeting, that the bottom end (30 fm. level), going north, should be prosecuted with all diligence, in order to cut the east and west lodes with the least possible delay; but since we have discovered this improvement in the north and south lode, I beg to recommend the stopping the end going north, and opening east on the east and west lode just cut, until we cut the north and south lode; and, when that is done, to drive north on the latter, by which we shall accomplish our object of intersecting the other east and west lodes, without being at the expense of driving through a dead piece of killas, and every fathom driven as I have now proposed will be laying open tin ground. In conclusion, I beg to say, that until the lodes are opened upon, the expenditure must exceed the value of the tin that can be returned; but as soon as the lodes shall have been properly developed, I have not the slightest doubt but that the balance at the quarterly meetings will be found to be in favour of the adventurers. The returns of tin for the next and following quarters will, I hope, be such as to inspire us with good hope for the future. Our prospects, certainly, were never before so encouraging.

WEST TRETHELLAN.—The following is the statement of accounts to Jan. 30:—Labour cost for the year 1848, 531*l.* 7s. 10d.; merchants' bills for ditto, 221*l.* 10s.=752*l.* 17s. 10d.—Copper ores sold in the year (less dues, 43*l.* 6s. 5d.) 606*l.* 9s. 10d.—showing loss of 146*l.* 8s.; add balance due purser last account, 27*l.* 17s. 7d.=174*l.* 5s. 7d. Call made 25th Jan., 8*l.* per share, 360*l.*, leaves balance at bankers, 185*l.* 14s. 5d.

WHEAL BASSET.—The following is the statement of accounts to Feb. 6:—By copper and tin ores sold Nov. and Dec. (less 1-15th lord's dues, 163*l.* 1s. 9d.), 2283*l.* 5s. 1d.—To labour cost for Nov. and Dec., 1304*l.* 19s. 7d.; merchant's bills, 459*l.* 19s. 9d.=1764*l.* 19s. 4d.—showing profit of 518*l.* 5s. 9d.; add balance in favour of last account, 142*l.* 7s.=660*l.* 12s. 9d.—By dividend this day declared of 5*l.* per share, 640*l.*: leaves balance in hand, 20*l.* 12s. 9d.

SOUTH TAMAR CONSOLS.—The first general meeting of shareholders was held at the offices, Bedford-row, on Friday, the 2d February.—JOHN BROWNE, Esq.

in the chair.—The purchase deed from the old company was produced, and a resolution passed, dividing the company into 9000 shares. Sir Hyde Parker, Bart., Messrs. W. A. Thomas, O. H. Smith, and John Browne were appointed the committee of management; Mr. James Wolferstan, the superintending agent, and Mr. G. Kieckhoefer, secretary. The rules and regulations for the government of the company having been read and adopted, the account of the cost incurred from the recommencement of working in August last, amounting to 893*l.* 11s. 8d., was ordered to be sent to each shareholder. A favourable report was read, and a call of 2s. 6d. per share made.

WHEAL ELLEN.—A meeting of adventurers in this mine took place on Friday week, when the accounts, as follow, were allowed:—By balance at the end of Sept., 461*l.* 16s. 10d.; adventurers' part of ores, 528*l.* 3s. 8d. = 990*l.* 0s. 1d. —To costs, &c., for Oct. and Nov., 456*l.* 6s. 7d.: balance in hand, 533*l.* 13s. 6d., out of which a dividend of 240*l.* is payable.

EXMOOR WHEAL ELIZA MINE.—Capts. W. H. Whitford and Thos. Dunn (Feb. 8) report—Since our last, our sinking operations have not been quite equal to our anticipations, in consequence of a greater influx of water, and the ground being harder than usual; but, from present indications, it is highly probable we shall shortly cut the counter lode in the shaft, which we hope will considerably facilitate our progress.

GOLD FIELDS OF UPPER CALIFORNIA.—Among the numerous publications which have appeared during the late and present excitement, respecting the vast gold deposits of Upper California, is a map of the United States of America, extending from the Atlantic to the Pacific Oceans, showing the position of the gold fields of Upper California, in lithography, published by Mr. Moody, High Holborn, which, to those who have any intention of going out gold-seeking, or for any other purpose, to traverse the vast districts of North America, or of only the obtainment of a correct knowledge of the position and bearings of the most extraordinary districts and divisions of this vast continent, will be found most useful. For those who intend an overland journey through the United States, it will be highly interesting, as, after leaving civilisation behind, at about the 20th degree of north latitude, in the remaining distance to the 45th, the principal rivers are carefully laid down, the ranges of the mountains defined, and the positions marked of the present settlements of the North American Indians, of the still numerous existing tribes. The rivers and plains are shown where gold has hitherto been found, and the lower margin is illustrated with two prettily-finished drawings, being views in the bays of San Francisco and Monterey. It is published at a cost to be within the reach of all.

CONTRACTS FOR COALS.—The Commissioners of Greenwich Hospital have given notice that, on Thursday next, they will be ready to receive tenders for the supply of 2800 tons of Newcastle Wall's End coals (Heaton's). They are to be delivered, in cargoes of not less than 200 tons, alongside the hospital wharf, free from all charge. The supply to commence on the 1st day of April, 2000 tons to be delivered by the 30th June, and the remainder by the end of September. The contract with the French Government for 35,178 tons of coal, for the use of the Post-office, which should have been decided on the 20th Nov. last, has only just been concluded, in consequence of the opposition shown by some of the contracting parties to what they call favouritism for English coal. The contract has even now been only partially concluded for three months—400,000 kilos to Calais, 150,000 kilos to Ajaccio, 150,000 to Bastia, 1,300,000 to Mottu, 1,100,000 to Marseilles, 300,000 to Constantinople, and 500,000 to Alexandria. The contracts appear to have given pretty general satisfaction, although two-thirds are English coal, and a small portion Belgian. The total quantity yet to be delivered to October next amounts to 39,400,000 kilos. There was great competition, and the prices varied from 1*l.* to 1*l.* 10s. per ton, in proportion to the distance of delivery.

ECCENTRIC TAPPET FOR STEAM-ENGINES.—Messrs. M'Adam, Brothers, and Co., of the Soho Foundry, Belfast, Ireland, have recently registered, under the Act, an eccentric tappet, formed in its circumference with indentations of peculiar form, to be applied to the engine to effect the working of the plug-rods attached to both steam valves, in accordance with the movements of the governor, cutting off the steam at any part of the stroke, and regulating the motion without a throttle valve.

LORD *v.* THE COPPER MINERS' COMPANY.—In the Vice-Chancellor's Court on Thursday, Mr. R. Palmer moved to dismiss the bill, for want of prosecution, against the Bank of England.—Mr. Hobhouse, for the plaintiff, objected that the demurrer was now the subject of appeal to the House of Lords.—The Vice-Chancellor considered, that being the case, that the motion should stand over, the plaintiff undertaking to prosecute the appeal to a hearing as soon as possible

NEATH.—THERE'S A GOOD TIME COMING.— A correspondent sends us the following information:—It is generally rumoured at Neath, that several new works, upon an extensive scale, are about to be erected in that neighbourhood.

DEPUTATION TO THE BOARD OF CONTROL.—An incorrect account has appeared in the city article of a morning paper, of an interview which took place on the 8th inst., between a deputation from Lancaster and Yorkshire cotton manufacturers, joined with the managers of certain railroad companies, and the President of the Board of Control. It is quite true that the President assured the deputation that due attention would be paid to their statements, and that he felt inclined, as then advised, to render less stringent one of the terms intended to be offered by the Court of East India Directors to the railway companies—viz., that which is commonly called the confiscation clause; but it is not true that Sir John Hobhouse gave the deputation to understand that he was disposed to yield upon the main point on which the railway managers seemed principally to insist—that is to say, on the unconditional guaranteed dividend of 5 per cent. On the contrary, lest any misunderstanding should prevail on this head, Mr. J. Wilson, one of the secretaries to the India board, declared—and his statement was confirmed by the president—that the concession to which allusion had been made had no reference whatever to the guaranteed dividend. It is proper to add also, that nothing was said, as stated by the article in the same paper, of the Government granting pecuniary aid to the companies.—*Times.*

NEW PATENTS.

J. A. Carteron, Paris, France, now of the Haymarket, Middlesex, chemist, for certain improvements in dyeing.

J. Browne, gent., late of Bond-street, but now of Great Portland-street, Middlesex, for improvements in constructing and rigging vessels, and improvements in atmospheric and other railways.

E. G. Pinchbeck, Fleet-street, London, improvements in certain parts of steam-engines.

T. Snowdon, Noel-street, Middlesex, engineer, for improvements in machinery for moulding and pressing artificial fuel and bricks.

J. Harrison, Blackburn, Lancaster, machine maker, and W. Harrison, of the same place, cotton manufacturer, and J. Oddie, of the same place, manager, for certain improvements in and applicable to looms for weaving.

H. Fisher, gent., Upholland, Lancaster, improvements in coke ovens, and machinery and apparatus for working the same or connected therewith, and a mode or modes of applying certain portions of coke, or the residual products of coke, to heating and lighting.

L. Hill, jun., Motherwell Iron-Works, near Hamilton, Lancashire, civil engineer, fo improvements in the manufacture of iron, and in the machinery for producing the same

H. H. Parish, Esq., Eaton-place, Middlesex, for improvements in safety and other lamps, and in gas burners.

R. P. Forlong, Bristol, button manufacturer, for improvements in castors for furniture.

W. W. Sleigh, Stamford Brook House, Chiswick, Middlesex, doctor of medicine, for a means of preventing injury to persons and property from the sudden stoppage of railway carriages.

J. Taylor, Parliament-street, Westminster, architect, for an improved mode of constructing and fencing walls.

J. Barnes, Church, Lancaster, for an improved apparatus for bleaching, dying, cleaning, and steaming animal or vegetable fibrous substances, either in a raw or manufatured state.

R. Brown, of Sadlers'wells, Middlesex, engineer, for improvements in machinery for perforating, sewing, stitching, pegging, and rivetting.

T. C. Clarkson, Bennet-street, Southwark, manufacturer, improvements in the manufacture and application of leather, and of certain vegetable substances to be used in combination with leather, India-rubber, canvas, silk, cotton, wool, and other fibrous substances.

W. Tooth, Broad-street, Lambeth, engineer, for improvements in water-closets and in chimney-pieces, in machinery for the preparation of clays and other materials, and in the manufacture of earthenware articles.

J. Webster, Basford, Nottingham, engineer, for certain improvements in apparatus for manufacturing gas.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

Barwell and Co., Northampton, hemispherical heat-diffusing stove.

J. Robinson and Co., Commercial-road East, waistcoat.

R. A. Farmer, Mount-street, Lambeth, case bottle stopper.

F. Westley, Strand, polychrest envelope.

T. Smith, Princes-street, Lambeth, automatic or self-acting flushing apparatus.

F. and C. Hazell, Gloucester-street, Clerkenwell, paragon spring swivel.

T. Wharton, Birmingham, Victoria ink-pot.

J. O. York, Covent Garden, instrument for measuring diameters.

J. and E. Ratcliffe, Birmingham, spring for opening and closing the covers of ink and other vessels.—*Mechanics' Magazine.*

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Carr's Hartley 15—East Adair's Main 12—Hartlepool West Hartley 14 9 —Hasting's Hartley 15—New Tanfield 12 6—Ord's Redheugh 12 6—South Pontop 12—Tanfield Moor 12 6—Walker's Primrose 11 6—Wylam 13—West Hartley 15—Wall's End Gosforth 13 9—Gibson 14—Hedworth 12—Eden Main 14 6—Braddyll's Hetton 15 6— East Hetton 14—Hetton 15 9—Jonassohns 14—Lambton 15 6—Russell's Hetton 15 6—Stewart's 15 9 to 16—Whitwell 14—Hudson's Hartlepool 14—Kellce 15 3—South Hartlepool 14 6 —Trimdon 13 6—Tees 15 6—Whitton Park 14 6—Anthracite 26—Cowpen Hartley 15—Hartley 14 6—Sidney's Hartley 15.—Ships at market, 158; sold, 47.

WEDNESDAY.—Carr's Hartley 15—Hasting's Hartley 15—Original Tanfield 11—Ord's Redheugh 12 6—South Pesareth 12—Tanfield Moor 12 6—Tanfield Moor Bute's 12 6—Walker's Primrose 12—Wall's End Hedworth 12—Hedley 13 3—Northumberland 13 6—Wharncliffe 14 3—Lyon 14 6—Hetton 15 9—Haswell 16 3—Lambton 15 6—Stewart's 15 9—Whitwell 14—Hudson's Hartlepool 14—Thornley 14 6—Trimdon 13 6—Adelaide Tees 15—Seymour Tees 14 6—South Durham 14 3—Tees 15 6—West Cornforth 14 3—Cowpen Hartley 15—Hartley 14 6—West Hartley Netherton 15—Sidney's Hartley 15.—Ships at market, 193; sold, 74.

FRIDAY.—Bate's West Hartley 14 6—Buddle's West Hartley 14 9—Carr's Hartley 15 —Hartlepool West Hartley 14 9—Holywell Main 15—New Tanfield 13 6—North Percy Hartley 14 6—South Pontop 12—South Pesareth 13—Tanfield Moor 12—Tanfield Moor Butes 12—Walker's Primrose 12—Wylam 13—West Hartley 15—Wall's End Bewicke and Co. 14—Hedworth 12—Hotspur 13 6—Hedley 13 6—Killingworth 13 6—Percy Benham 13 6—Wharncliffe 14—Eden Main 14 6—Lambton Primrose 14 6—Braddyll's Hetton 15 6—Lyon 14 6—Hetton 15 9—Haswell 16—Lambton 15 6—Russell's Hetton 15 6 —Stewart's 15 9—Shotton 14 6—Caradoc 15—Cassop 15—Heugh Hall 14—Trimdon 13 9 —Whitworth 12 6—Denison 14 3—South Durham 14 3—Tees 15 6—West Hartley Netherton 15.—Ships at market, 206; sold 74.

TABLE OF ALLOYS, SOLDERS, AND AMALGAMS, EMPLOYED IN THE ARTS.

BY M. CHAUDET, ASSAYER OF THE MINT, PARIS.

ALLOYS.

Gold coin—French standard	Gold, 900; copper, 100.
Silver coin ditto	Copper, 900; copper, 100.
Billon ditto	Copper, 800; silver, 200.
Gold medals ditto	Gold, 916; copper, 84.
Bronze medals, cast (these wear a long time)	Copper, 92; tin, 8.
Jewellery—French standard	Gold, 750; copper, 250.
Silver plate ditto	Silver, 950; copper, 50.
Gold coin—United States standard	Gold, 899·22; copper and silver, 100·78.
Silver coin ditto	Silver, 892·43; copper, 107·57.
Gold coin—English standard	Gold, 916·67; silver and copper, 83·33.
Silver coin ditto	Silver, 925; copper, 75.
Imitation gold	Copper, 91; tin, 9·50. [lead, 0·62.
Imitation silver (Chinese Packford)	Copper, 61·27; zinc, 28·78; nickel, 15·13;
For cannon	Copper, 100; tin, 11.
Statues (Keller's)	Cop., 91·40; zinc, 5·53; tin, 1·70; lead, 1·37.
Bronzes and candelabras	Copper, 82·60; zinc, 16·00; tin, 3·00; lead,
Mounting of fire arms	Copper, 80; zinc, 17; tin, 3. [1·50.
Cymbals, Chinese gongs, &c	Copper, 80; tin, 20.

This alloy is very hard; it is annealed by dipping, while red-hot, into water, and is then malleable; whilst, if suffered to cool gradually, it is excessively hard.

Bells	Copper, 75; tin, 25.
Reflectors of telescopes	Copper, 2; tin, 1.
Brass for lathes	Copper, 65·80; zinc, 31·80; lead, 2·15.
Brass for the hammer	Copper, 70·10; zinc, 29·90.

This is an important alloy, first made by M. Chaudet.

Types	Lead, 80; antimony, 20.
Alloy fusible in boiling water	Bismuth, 8; lead, 5; tin, 3.
Plugging teeth	Bismuth, 8; lead, 5; tin, 3; mercury, 16.
For tinning iron	Tin, 8; iron, 1.
To make ductile gold of 18 carats, 95·0 fine	Gold, 990; copper, 10.
Bells of mantel clocks	Copper, 75; tin, 25.
Pivots of artificial teeth	Platinum, —; silver, — (*P. N. Johnson*).
Ditto* ditto	Palladium, 50; silver, 50.
Springs of † ditto	Palladium, 50; silver, 50; copper, 50; tin, 10 (*P. N. Johnson*).

SOLDERS.

For gold of 750, or 18 carats	Gold of 750, 2·00; copper, 0·50; silver, 0·50.
Silver of 750	Silver, 2; brass, 1.
Brass	Copper, 50; zinc, 50.
Lead	Lead, 2; tin, 1.

AMALGAMS.

Gold for gilding on metal	Mercury, 91 to 89; gold, 9 to 11.
Silver for ditto	Mercury, 85; silver, 15.
For taking impressions of seals	Copper, —; mercury, —.

This amalgam is hard, and melts at a low heat; it was used by Fouché, for the purpose of opening and resealing letters. The proportions are, of course, not given.

Silvering mirrors	Tin, 70; mercury, 30.
Silvering globes of glass	Mercury, 80; bismuth, 20.
For cushions of electrical machines	Mercury, 2; tin, 1; zinc, 1.

* A very important and useful alloy, employed in the manufacture of philosophical instruments, as a substitute for platinum, to which it is superior in hardness and colour, and yet not oxydisable under ordinary circumstances.

† Another very useful alloy, possessing a degree of elasticity inferior only to steel, combined with the advantages of superior hardness and lightness over platinum.

Two Parliamentary returns connected with railways were printed yesterday. From the first return, it appears that in the year ended the 30th June last, the number of passengers conveyed on all the railways in the United Kingdom was 57,965,070¾. The receipts from passengers amounted to 5,720,382*l.* 9s. 1¾d., and from goods, &c., 4,213,169*l.* 14s. 5¼d—making the total receipts in that period, 9,933,552*l.* 3s. 7¼d. On the 1st July, 1847, the extent of lines opened was 3507 miles 71½ chains; and on the 30th June last there was 4357 miles and 64¾ chains. The second paper has reference to the Acts passed in the session of 1848 on railways, with the length of lines, &c. The number of Acts was 85; the total increase of mileage was 330 11 chains; the total increase of capital was 10,414,866*l.*; and the loans 4,205,605*l.*—making 14,620,471*l.*

RAILWAY PROSPERITY.—Mr. Allan, sharebroker, of Edinburgh, in his last circular, calls attention to the fact, that first-class railway debentures are becoming scarce. He states that the Edinburgh and Glasgow, the London and North-Western, and some other companies, are declining money at 5 per cent. We have heard from other quarters that the London and North-Western limit the maximum to 4½ per cent. With respect to the general question of railway property, Mr. Allan says, very truly, that the existing traffic cannot be assumed as any criterion of the real value of such property, since the returning prosperity of the country must have its corresponding activity, and the traffic on every line in the kingdom cannot fail to participate in the improvement.

ACCIDENTS.

Colliery Explosion at Barnsley—The Adjourned Inquest.—We stated in our last that Mr. Badger, the coroner, had forwarded a communication to Sir George Grey, Secretary of State for the Home Department, requesting that some steps might be taken by the Government for ascertaining the cause of the accident, and for the adoption of some remedial measures for the prevention of these awful catastrophes in future. This request, it appears, was immediately responded to; for, in the early part of this week, Mr. Tremenheere, a commissioner under Lord Ashley's Act, and Mr. W. W. Smyth, mineral geologist to the Ordnance Geological Survey, arrived on the spot as Government commissioners; and on Wednesday, accompanied by Mr. Nicholas Wood, colliery viewer to Lord Ravensworth, Mr. B. Biram, coal steward to Earl Fitzwilliam, Mr. Goodison, of Lofthouse, near Leeds, viewer, and Mr. J. T. Woodhouse, of Overseal, Derbyshire, who has the superintendence of several collieries, descended, and carefully examined every part of the workings. The inquest was resumed on Thursday, when the first witness examined was J. Thompson, the underground steward of the Darley Main Colliery. He stated, that he had examined every part of the pit where the men had to work before they went down in the morning. All was quite right; he came up about eight o'clock, and descended again about ten, and visited all the workings with a naked candle. He was walking along the first dip-board when the explosion took place, and had not observed any change in the state of the air. He fell down insensible, while making for the bottom of the shaft. He could not say positively where the explosion took place, but believed it to have been at the top end of the far dip-board, near the fault. The men were working with naked candles, as was usual. The owners found safety-lamps if they were needed, but the men did not like them, and everything appeared perfectly safe. There was no complaint of foul air before the explosion. After some general and unimportant evidence, Mr. Nicholas Wood was examined. He said he had inspected the Darley Main Colliery with reference to the recent lamentable accident, in company with Mr. Biram, Mr. Goodison, and Messrs. Tremenhere and Smyth, from London. He first pointed out, on a map prepared for the occasion, where he thought the explosion took place, and said that the pit was 130 yards deep. At the extreme dip-board, the air was divided into two currents—one proceeding up the bank on the first dip-board, and then along the face of the bank of the second, adjoining the slip. At that spot, the current was again split, forming two currents, which met again at the extreme point of the north level. The currents were split, and rejoined several times in their passage to the furnace and the upcast shaft; and the air has to travel about three miles through the workings. After mature investigation with the gentlemen named, he was of opinion that the inflammable air exploded in two places almost simultaneously—the second being in consequence of the concussion from the first, which was caused by an accumulation of carburetted hydrogen in the old breaks adjoining the slips of the banks on the second dip-board, which must have been brought in contact with the naked candles of the men working on those banks. In reply to a question from the Coroner, he said, that he considered there was but a trifling production of gas in the seam of coal, and that generally the banks would be pretty free—the quantity of air passing through the pit being sufficient to carry it off without danger. There appeared to him to be two or three reasons for the explosion; there was a strong wind, indicating a fall in the barometer, which induces an escape of gas, if there is any in the seam. This would accumulate in those parts where there was no current to carry it off; and the high wind would tend to diminish the current from its action on the upcast shaft—thus there would be an increased production of gas, with a diminished current of air to carry it off; the practice of drawing water by tubs up this shaft also very much lessened its efficiency. In answer to various questions by the jury, Mr. Wood stated that he thought in that colliery there were means of producing more air; in Newcastle they had the same system, but it was more active, and they should consider a pit dangerous with less than from 30,000 to 40,000 ft. of air per minute; yesterday there might be from 10,000 to 12,000 ft. per minute; he thought, by improved methods of ventilation, the pit might be made safe for working by naked candles. He had paid considerable attention to the propriety of a system of Government inspection, and though at first there was great difficulty, he thought the time had come when the difficulty might be obviated; he would rather depend upon the rarifying power of furnaces than steam. Mr. B. Biram coincided entirely in all the views of Mr. Wood. Mr. W. W. Smyth was next examined, and perfectly concurred with the opinions of Mr. Wood and Mr. B. Biram; it struck him forcibly that, for a colliery of such magnitude, the quantity of air was insufficient, and the mode of applying even that quantity was not well adapted to clear the workings. He strongly deprecated the practice of drawing water up the upcast shaft; still he wished to record his conviction, that Mr. Locke, the viewer, had done all in his power, and was not altogether a free agent. He thought a Government inspection might point out many modifications of importance, and often prevent accidents. He had observed the effects of Government inspection on the continent, and was persuaded that it not only tended to the safety of the workmen, but made more comfortable the relations between the owners, agents, and workmen, and the system was, therefore, highly prized by all. Mr. Seymour Tremenheere, the commissioner under Lord Ashley's Act, was next examined. His duties related to the mining population; he had nothing to do with the internal arrangement of mines; but in the course of his inquiries through all the mining districts, he had taken every opportunity of ascertaining a point of such vital importance as the practicability of a system of Government inspection. He had collected the opinions of a great number of scientific men, and had inquired into the systems of inspection in France, Belgium, and Germany, and he had no doubt that a moderate measure of mining inspection might be very easily devised, would not meet with material opposition, and would be attended with a great saving of life and property in all the colliery districts. It should be a system to work more by persuasion than force, and in the same spirit as the inspectors on the continent are directed to conduct their inspection—viz.: with the utmost forbearance, and as friendly advisers. The verdict was expected to be given yesterday afternoon, which we shall record in our next.

Awful Accident in Ireland.—As Captain Chequin, superintendent of the Modubeagh Colliery, Queen's County, was descending one of the engine pits, the ladder on which he stood broke, when he was precipitated about 20 yards, and fell upon a man named Connors, who was standing on a scaffold within 8 feet of the bottom of the pit. The scaffold gave way, and all fell into 3 feet of water. The captain (a native of Wales) was taken up in a state of insensibility, and bleeding profusely. Connors was severely injured on the side and head. Dr. Edge, physician to the collieries, was immediately on the spot, and afforded prompt medical assistance and relief to the sufferers, but the injuries sustained by Capt. Chequin are of so serious a character as to render his recovery hopeless.

North Bostear.—James Bawden fell from one of the levels, and broke two of his toes.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY ....Electric Telegraph Company—offices, at One.
MONDAY.....Wheal Seton Mining Company—at the mine.
Plymouth Great Western Docks Company—Stonehouse, at Three.
WEDNESDAY ..Tenby, Saundersfoot, and South Wales Railway—offices, at Two.
THURSDAY....Standard Life Assurance Company—offices, at Two.
Rock Reversionary Company—London Tavern, at Twelve.
Great Western Railway—Paddington Station, at Twelve for One.
New South-Western Steam Navigation Co.—Nine Elms Station, Four.
West Cornwall Railway—King's Arms Hotel, Westminster, at One.
European Gas Company—offices, at One.
FRIDAY.....Shrewsbury and Birmingham Railway—London Tavern, at Two.
London and North-Western Railway—Euston Hotel, at Twelve.
SATURDAY....Buckinghamshire Railway—Euston Station, at One.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, *Saturday morning Eleven o'clock.*

Bank Stock, 7 per Cent., 196
3 per Cent. Reduced Ann., 92¾ 3 2¾
3 per Cent. Consols Ann., 92¾ ¾
3¼ per Cent. Ann., 93¾ ¾
Long Annuities, 9
India Stock, 10½ per Cent., 245
3 per Cent. Consols for Acc. 92¾
Exchequer Bills, 1000*l.* 2d. 50 52 pm.

Belgian, 2¼ per Cent., —
Dutch, 2½ per Cent., 50¾ ⅝ 50
Brazilian, 5 per Cent., 81¾ ¾
Chilian, 6 per Cent., —
Mexican 5 per Cent., 25¾ ¾
Russian, 5 per Cent., 109 8¾
Spanish, 5 per Cent, 17¾ ¾
Ditto 3 per Cent., 29¾

MINES.—The transactions in the mining share market have, during the past week, been numerous, and the business generally satisfactory, from the equitable nature of the prices obtained. The leading mines in particular appear to command attention, and, from their general improvement, together with the anticipated advance in the standard for copper ore, there is every probability of steady and progressive improvement. A tone has also been undoubtedly given to mining shares by the steady advance of Consols, which reached, during yesterday, 93, as also from the firmness of the railway share market. The reports from the mining districts in general are also of a very gratifying character, and the advance on the price of tin has brought many of these mines into a profitable position.

Treviskey and Barrier, South Wheal Basset, and West Wheal Buller, have been in request, and business done. In the latter mine the prospects continue to improve, the lode in the shaft being worth from 80*l.* to 100*l.* per fm., and shares have been done at our present quotations.

Stray Park continues to look well, and many shares have changed hands.

Wheal Seton shares have been done; the prospects here are much improved. The stopes which had fallen off diminished the last sale, but we are advised, on good authority, that the future samplings will increase, and, with an improved standard, the deficiency will be made up.

North Pool continues to improve in depth, and we learn that shares have been done at our present quotations.

West Wheal Seton is represented to have considerably improved, and shares changed hands, especially in the country, at advanced prices. We learn that great credit is due to Mr. Richard Harvey, for the very spirited and economical manner in which he has conducted the affairs of this mine.

Guadalcanal shares have been inquired for at a premium, but we are not advised of any sales.

Birch Tor is reported to have considerably improved, and an inquiry has been made for the shares. An inquiry has also been made for Kingsett and Bedford shares.

We were pleased to notice a slight advance last week on the standard for copper ore at the Cornish sales, and we may fairly calculate on a progressive improvement, arising from the present increased demand for copper.

Shares in the following mines have changed hands during the week:—Devon Great Consols, East Wheal Rose, Treviskey and Barrier, Wheal Seton, Levant, Trelawny, West Wheal Seton, North Pool, Treleigh, West Caradon, South Wheal Basset, Trehane, Camborne Consols, Stray Park, West Tolgus, Wheal Henry, South Tamar, Heignston Down, East Tamar, Condurrow, Holmbush, Mary Ann, Wh. Margaret, Mendip Hills, Tamar Consols, Lewis, Tincroft.

At the Tresavean meeting for Oct. and Nov. a loss of about 50*l.* was shown. The balance now in hand is about 770*l.*

At the Trethellan meeting a profit of 9*l.* 15s. 3d. was found to have been made on the workings for Sept., Oct., and Nov., which, added to the balance in hand, gives a credit of 236*l.* 9s. 6d. in favour of the adventurers.

At the West Trethellan mine account, for the year 1848, a balance of 185*l.* 14s. 5d. was found in favour of the mine.

At the Wheal Blencowe quarterly account a balance of 184*l.* was found against the company; a call of 15s. per share was made to discharge it. The agent's report was highly favourable, and represents the prospects as being more encouraging than ever before seen. An east and west lode had been recently cut in the 30 fm. level, productive of good tin, with every appearance of the same becoming more abundant. An improvement had also taken place in the old north and south lode, from whence six men broke upwards of 90*l.* worth of tin in the past month, and continued equally good.

At the South Wheal Basset account, a dividend of 5*l.* per share was declared on November and December workings. A profit of 518*l.* 5s. 9d. was made, which, added to the balance of 142*l.* 7d., brought from last account, enabled a dividend to be paid, leaving 20*l.* 12s. 9d. to the credit of the adventurers. The mine is represented to have considerably improved since the last account, and they anticipate sampling next week 150 tons from William's lode, which will give a produce of 16 per cent.

In foreign mines there has also been a fair proportion of business; the principal transactions have been in United Mexican, St. John del Rey, Australian, Cobre, Copiapo, and Barossa Range.

The Copiapo Company has received its usual monthly report for October, which represents the lode in the 5 fm. level, west at San Pedro, 10 in. wide, and worth 30 per cent., with prospect of increasing in size and value as they progress; the stopes also in this level have been, and still continue, productive, and the 10 fm. level is also highly encouraging. The Checo Mines are stated to have considerably improved; in the 12 fm. level, east of the new shaft, they have a lode 2 ft. wide, worth 40 per cent. In the Esperanza Mine they have a very fine lode, 12 ft. wide, but the quality of the ore is not of sufficient richness to give immediate profits; still there is every probability of increasing in quality as they go down into more settled country. San Juan has also a very productive lode; but operations have been suspended from necessity, for reasons assigned in the report. The produce from the different mines, for the month of October, amounts to 67 tons: 562 tons were shipped by the *Catherine Jenkins*, and sailed on the 16th November. The report from the newly-acquired silver mines is highly satisfactory, and a detailed statement is furnished in another column.

HULL, THURSDAY.—Shares have changed hands freely since we last wrote—in most cases at improved rates—owing to the abundance of unemployed capital, the encouraging tone of the foreign advices, but chiefly to the important news from the gold regions of California, with respect to which, after making every allowance, there really appears to be no mistake.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Price per share	Div. 1848	*Traffic Returns.* 1849	1848
Belfast and Ballymena	37¾	——	20¼	‡ *p. c.*	£ 355	—
Birkenhead, Lancashire, & Chesh.	19	997,284	37	5 *p. c.**	746	524
Bolton, Blackburn, & West Yorksh.	14	——	5¾	—	319	—
Caledonian	141	3,993,732	26	—	3622	—
Chester and Holyhead	84	3,014,602	22¼	4	1225	—
Dublin and Drogheda	35¼	774,875	33	—	670	669
Dublin and Kingstown	7¾	395,915	—	—	975	791
Dundee, Perth, & Aberdeen Junc.	47¾	544,554	26	8	910	654
East Anglian (Lynn to Ely)	67¾	1,167,104	4	—	686	419
East Lancashire	44	1,733,915	19¾	5	1719	971
Eastern Counties and Norfolk	307	10,364,505	11¾	4	13602	12084
Eastern Union	51¾	1,522,232	12¾	—	1114	1120
Edinburgh and Glasgow	57¾	2,556,889	42	6	3058	3274
Edinburgh and Northern	78	1,722,213	12	4*	1552	681
Glasgow, Paisley, and Ayr	102¾	2,386,353	5¾	4	2022	1757
Glasgow, Paisley, & Greenock	23	848,228	14¾	4	916	946
Gt. Northern & East Lincolnshire	110	——	9¾	5*	1800	—
Gt. Southern & Western, Ireland	131	2,844,897	33	4*	3019	1669
Great Western	305¾	11,311,069	104	7	17829	16008
Kendal and Windermere	10¾	174,600	25¾	—	102	106
Lancaster and Carlisle	70	1,476,102	55¾	4	1967	1257
Lancashire and Yorkshire	172¾	8,242,628	72	6	10136	8168
London and North Western	435	22,835,120	137-8	7	37187	34956
London and Blackwall	4	1,399,675	5	1-12	544	606
London, Brighton, & South Coast	162¾	6,284,812	35¾	2¾	6887	5798
London and South-Western	215	7,139,733	42	6	—	6269
Londonderry and Enniskillen	14¾	154,643	16	—	—	103
Manchester, Sheffield, & Lincolnsh.	91¾	4,651,093	48	5	2748	2047
Midland Company	471	13,254,006	94	6	18662	17738
Midland Great Western (Irish)	50	725,332	18¾	4*	1101	605
North British	99	3,163,450	16¾	5	2162	1714
Scottish Central	45¾	1,245,496	23¾	—	795	—
Shrewsbury and Chester	47	780,272	20¾	5	1229	468
South Devon	55¾	1,789,351	17¾	—	1243	671
South-Eastern	165¾	7,389,322	25¾	6¾	6646	5440
Taff Vale	38	820,056	—	6¾	1888	1747
Ulster	36	684,684	45¾	—	670	663
Whitehaven Junction	12	150,879	100	3	—	154
York, Newcastle, & Berwick	269	5,038,355	29¾	8	10821	10019
York and North Midland	258¾	4,179,909	56¾	8	6901	6131

PRICES OF MINING SHARES.

Shares.	BRITISH MINES. Company.	Paid.	Price.
1000	Aberystwith	5	8
512	Albert Consols	1	2½
1024	Alfred Consols	5	5
1000	Antimony&Silver-Lead	5	3½
1024	AshburtonUnited Mines	8½	7
1024	Balleswidden	9	18
128	Balnoon Consols	25	25
10300	Banwen Iron Co.	6	6½
1000	Barristown	5½	1½
4000	Bedford	2	2½
1244	Birch Tor Tin Mine	9	—
8000	Blaenavon	50	17½
100	Botallack	182	50
120	Brewer	5	7
10000	British Iron, New, regis.	12	7
—	Ditto ditto, scrip	10	10
128	Budnick Consols	52½	35
1000	Callington	20	14
1000	Camborne Consols	5	4
20000	Cameron's Steam Coal	6	1
256	Caradon Copper Mine	9½	3
256	Caradon Mines	22½	10
256	Caradon United	24	5
256	Caradon Wh. Hooper	21	8
1000	Carn Brea	15	100
3000	Carthew Consols	1½	5
112	Charlestown	220	60
512	Coatlithe Hill	½	1
500	Comblawn	5½	3
128	Comfort	45	35
256	Condurrow	20	40
2560	Cook's Kitchen	14	2
1000	Coombe Valley Quarry	3½	4½
6500	Cornish Mining Co.	2	2⅞-¾
20000	Cornwall New Mining	1	1
1000	Copper Bottom	1½	6½
1024	Cosheen	4½	30
212	Craddock Moor	23½	5
128	Creeg Brawa	120	60
500	Cubert Mine	12½	—
1000	Cwm Erfin	3	4
300	D.Prior & Buckfastleigh	—	—
7100	Derwent	8½	5
845	Devon&CourtenayCon.	7½	¾
1024	Devon Great Consols	1	225
1000	Dinorode	2	5
186	Dolcoath	30	15
2560	Drake Walls	5	4
10000	Durham County Coal	45	9
3000	Dyfngwm	10	12½
512	East Alvenney	5½	5½
2500	East Birch Tor	3	3½
112	East Caradon	47	47
2048	East Crowndale	6½	4
512	East Combe Silver-Lead	6½	6½
128	East Pool	15	30
9000	East Tamar Consols	¼	¼
—	East Wheal Albert	1	3
94	East Wheal Crofty	125	250
1024	East Wheal Fortune	2	3
128	East Wheal Rose	50	600
—	East of Scotland Iron Co.	5	1½
123	East Wheal Seton	14	10
1280	Esgair Lli	1½	5
256	Exmoor Wh. Eliza	6	6
512	Fowey Consols	40	45
1024	Freidd Llwydd Mines	1½	3½
6400	Gadair	2	2
4000	Gen. Mining Co. for Irel.	1½	1½
256	Gonamena	44½	16
128	Goonvrea	4	2
100	Great Consols	1000	250
256	Great Resugga Moor	11	6
512	Gt. Wh. Rough Tor Con.	18½	11
1200	Growa Slate Company	5	5
256	Gwinear Consols	7	1
6000	Heigneton Down Con.	1½	1½
256	Herodsfoot	27	24
10000	Hibernian	12½	1½
239	Hobb's Hill	6	1½
1000	Holmbush	22	2
1024	Kingsett and Bedford	½	3
837	Kirkcudbrightshire	8½	2
2048	Lamberooo Wh. Maria	13	2
252	Lanarth Consols	—	10
128	Lelant Consols	90	60
160	Levant	—	135
1000	Lewis	16	9
1000	Llwyn Malees	7½	7
3600	Llynvi Iron	50	50
256	Lostwithiel Consols	19	14
6000	Marke Valley	10	1½
5000	Mendip Hills	3	1½-¾
5000	Merionethshire SlateCo.	1½	2
128	Metha	34	140
20000	Mining Co. of Ireland	7	4
256	New East Crowndale	3½	2½
100	North Pool	45	535
140	North Roskear	5½	165
262	North Wh. Leisure	1½	2
15000	Northern Coal Co.	23	2
128	Par Consols	55½	1000
8000	Pennant & Craigwen	2	2
100	Penrhiw	30	65
1024	Penzance Consols	16s 3d.	2
512	Plymouth Wh. Yeoland	6½	10
200	Polsaith Consols	5½	4½
2500	Rhoswiddol&Bacheldon	10	10
10000	Rhymney Iron	50	13
10000	Ditto New	7	6½
1000	Rosewall Hill	1	5
256	Rosewarva Mines	—	12
2048	Runnaford Coombe Tin	¾	7

Shares.	BRITISH MINES—*continued.* Company.	Paid.	Price.
9000	South Tamar	¼	¼
128	South Caradon	5	400
1100	South Dolcoath	4	5
256	Sth. Friendsh. Wh. Ann	20	4
256	South Molton	5	12½
256	South Tolgus	10	50
256	South Treluswny	28½	3
2000	South Wales Mining Co.	¼	1-1¼
128	South Wheal Basset	110	195
124	South Wh. Frances	160	240
256	South Wh. Josiah	—	1¼-2
1000	South Wh. Maria	2½	1½
10000	Southern&Western, Irish	2	4
280	Spearne Moor	30	40
256	St. Austell Consols	9	—
94	St. Ives Consols	—	320
128	St. Michael Penkivel	5	10½
999	St. Minver Consols	1	6
1000	Stray Park	43	19
9600	Tamar Consols	3	6½
1024	Tavy Consols	6	4
6000	Tincroft	7	7½
1000	Tin Vale	2½	3½
58	Tokenbury	170	10
256	Tollpetherwin	3½	5
256	Tregordan	2	8
256	Trehaue	1½	30
5000	Treleigh Consols	6	1½
2000	Trenance	3	—
96	Tresavean	10	150
120	Trethellan	5	17
120	Treviskey and Barrier	130	95
288	Trevean	1½	5
100	United Mines	300	350
256	Wellington Mines	25	20
128	West Buller	10	150
256	West Caradon	20	125
512	West Fowey Consols	40	12
256	West Providence	9	15
200	West Seton	40	210
—	West of Scotland Iron Co.	240	90
120	West Trethellan	5	25
256	West United Hills	—	4½
512	West Wheal Frances	1½	2
256	West Wh. Friendship	9	8
3725	West Wheal Jewel	11	1½
256	West Wheal Tolgus	21½	8
256	West Wheal Treasury	19	5
1024	Whiddon Mines	4½	3
5200	Wicklow Copper	5	8½-¼
107	Wheal Adams	79	30
1000	Wheal Agar	—	8
256	Wheal Albert	10	1
240	Wheal Anderton	23	15
128	Wheal Ann	—	50½
512	Wheal Anna Maria	6½	8
1024	Wheal Ash	4½	8
120	Wheal Bal	5½	20
256	Wheal Benny	14½	2
256	Wheal Blencowe	21	5
256	Wheal Bucketts	20	5
256	Wheal Calstock	5	12
1024	Wheal Coad	1	4
268	Wheal Courtenay	12½	15
256	Wheal Fortescue	6½	—
288	Wheal Franco	27	18
128	Wheal Harriet	45	—
100	Wheal Henry	—	24
1024	Wheal Lawrence	3	3
112	Wheal Margaret	79	200
512	Wheal Mary Ann	5	13½
208	Wheal Mary Consols	60½	8
—	Wheal Penhale	—	12
210	Wheal Prospect	4	7
120	Wheal Reeth	41	150
128	Wheal Rose	60	3
99	Wheal Seton	214	700
180	Wheal Sisters	35½	5
512	Wheal Sophia	3½	5
128	Wheal Spearne	10	75
128	Wheal St. Ann	30	35
550	Wheal Trescoll	5	6½
260	Wheal Trelawny	7½	70
256	Wh. Tremaine(St. Ervan)	9½	2½
1024	Wheal Tremayne	9½	3
92	Wheal Tryphena	140	265
1000	Wheal Vincent	1½	6
256	Wheal Vlow (Perranz.)	½	¼
184	Wheal Vyvyan	—	60
250	Wheal Williams	28½	6
1024	William & Mary Worth	2	2½
	FOREIGN MINES.		
5000	Alten Mining Company	14½	1½
15000	Asturian Mining Co.	15	3½-¾
20000	Australian	3	6½-¾
10000	Anglo-Mexican Co.	100	¼
12374	Ditto Subscription	25	1½
6000	Barossa Range	1½	1-½
3000	Bolanos	150	2½
2000	Ditto Scrip	15	3½
10000	Brazilian Imperial	23	6
12000	Cobre Copper Co.	40	18½
10000	Copiapo Mining Co.	14	3½
10000	General Mining Ass'n.	20	10
—	Guadalcanal	4½	10-11
5000	Kinzigthal Mining Ass.	2	3
20051	Mexican Company	59	—
2000	Mexican & South Amer.	8	¼
5000	National Brazilian	30	3½
104000	N. Brit. Australasian	1	¼
7000	Royal Santiago	10	5½
41000	St. John del Rey	15	13
13174	United Mexican	Av. 28½	4-4½

*** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List as we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, FEBRUARY 8, 1849.

	per ton.
ENGLISH IRON. *a*	
Bar, bolt, & square, London	£6 15 0
Nail rods	7 10 0
Hoops	8 0 0
Sheets (singles)	9 0 0
Bars, at Cardiff & Newport	5 15-6 0
Refined metal	4—4 5
Anthracite	4—4 5
Pig, No. 1, Wales, cold-blast	4 0 0
Do. do. hot-blast	3 15 0
Do., No. 1, Clyde *net cash*	2 11-2 13
Stirling's Patent } in Glasgow	2 19-3 5
Toughened Pigs } in Wales	4 0-4 5
Staffordshire bars, at the works	6 10 0
Pigs, in Staffordshire	3—3 15
Rails	5 15-6 0
Chairs	4 5 0
FOREIGN IRON. *b*	
Swedish	13 10 0
CCND	17 0 0
PSI	—
Gourieff	—
Archangal	12 10-13
FOREIGN STEEL. *c*	
Swedish keg	13 10-14
Ditto faggot	15 10 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9
Tough cake *per ton*	79 10 0
Tile	78 10 0
Old copper *e* *per lb.*	0 0 7½

FOREIGN COPPER. *f*	
South American, in bond	£73-75
ENGLISH LEAD. *g*	
Pig *per ton*	£16 0 0
Sheet	16 15 0
Red lead	18 0 0
White ditto	22 0 0
Patent shot	19 0 0
FOREIGN LEAD. *h*	
Spanish, in bond	15 10 0
American ditto	—
ENGLISH TIN. *i*	
Block *per cwt.*	4 7 0
Bar	4 8 0
FOREIGN TIN *k*	
Banca, in bond	4 10 0
Straits	4 10 0
Peruvian (6 mo. 2½ p. ct. dis.)	—
TIN-PLATES. *l*	
IC Coke *per box*	1 8 0
IC Charcoal	1 12 0
IX ditto	1 16 0
SPELTER. *m*	
Plates, warehoused, *per ton*	15 5-15 10
Ditto, to arrive	—
ZINC. *n*	
English sheet *per ton*	20 0 0
QUICKSILVER, *o* *per lb.*	0 3 6

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

REMARKS.—We have had a very buoyant market for iron this week, and all descriptions must be written as commanding higher rates. In Welsh bars a very extensive business has been done, and it is reported that some thousands of tons have changed hands at 5*l.* 10*s.* at the port. Makers are now firm, at from 6*l.* 15*s.* to 6*l.* free on board in Wales. No alteration has been made in manufactured iron, by the principal makers in Staffordshire, since the last quarterly meeting, but a rise of 5*l.* per ton on the price of forge pigs has been established, and as at this advance the article is scarce, higher rates may be looked for in Staffordshire bars, rods, &c. Scotch iron, in consequence of increased demand, is again higher, and very large transactions have taken place within the last few days. We quote the prices firm to day at 50*s.* 6*d.* for mixed numbers, 51*s.* for all No. 1 of ordinary good brands, and 52*s.* 6*d.* to 53*s.* for No. 1 Gartsherrie, all nett cash, in 10 or 14 days, free on board at Glasgow.

MONTHLY REPORT.—IRON.—The demand for Welsh bar-iron has been good throughout the month. Makers are well supplied with orders, and will not sell under 5*l.* 10*s.* per ton for early specification and delivery. Rails are a little more enquired after.—Scotch pig-iron: In this article considerable business has been done during the month, and as high as 49*s.* 3-5ths No. 1, and 2-5ths No. 3, and 50*s.* No. 1 common brands, and 51*s.* 6*d.* per ton No. 1 favourite brands, free-on-board at Glasgow has been paid. At the moment the market is a shade lower, there being sellers of 3-5ths No. 1 and 2-5ths No. 3, common brands, at 48*s.* 6*d.* to 49*s.* Staffordshire bar-iron is firm in price, and in fair demand. Swedish iron on the spot is scarce, and a good assortment is not obtainable under 13*l.* per ton; to arrive in the spring there are sellers at 11*l.* 10*s.* per ton.

SWEDISH KEG STEEL is firm at 13*l.* 15*s.* per ton.

ENGLISH COPPER is in good demand.

ENGLISH TIN has been advanced 8*l.* per ton during the month. Refined continues scarce. Banca has participated in the advance upon English, and is firm at 90*l.* per ton.

TIN-PLATES continue in good demand, and the price of coke IC has advanced to 28*s.* per box in hand, or 27*s.* per box at Liverpool.

LEAD is firm in price, and in moderate request.

SPELTER.—Early in the month a considerable purchase was made for French account, which had the effect of raising the price to 15*l.* 5*s.* per ton, but since, the enquiry for the article has been extremely limited, and the quotation of 15*l.* 10*s.* per ton is nominal. The present stock in hand is 1726 tons, against 1800 tons this period last year.

GLASGOW, THURSDAY.—The improvement noticed in our last continued up till Monday, when a few forced sales depressed the market to 47*s.* 6*d.* cash prompt. Since then, however, the market rallied, and a considerable business has been done, principally for speculation, and as high as 51*s.*, cash, has been paid for mixed Nos., which we quote as the price to-day.

EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL, FOR THE FIRST MONTH OF 1848 AND 1849.

Metals.		1848.	1849.	*In.* in 1849.	*Dec.* in 1849.
Spelter	*Tons*	2	287	285	—
Copper		206	506	300	—
Iron, British		798	1711	913	—
Ditto, foreign		—	—	—	—
Tin-plates	*Boxes*	269	401	132	—
Lead	*Tons*	10	180	170	—
Steel		5	—	—	5
Quicksilver	*Bottles*	—	3	3	—

SILVER-LEAD ORE

From Wheal Rose, Sampled 22d January, and Sold 2d of February.

Purchasers.	*No. 1—computed 32 tons.*	*No. 2—Computed 5 tons.*
Tamar Smelting Company	20 *cwts.* £16 13 6	—
Mather and Co.	17 0 0	—
Newton, Keates, and Co.	15 10 6	—
Combmartin Smelting Co. (purchasers)	18 12 0	£10 5 0
R. Michell and Son	21 *cwts.* 17 6 0	10 15 0
Penpoll Smelting Company	17 6 0	10 15 0
Walker, Parker, and Co,	20 *cwts.* 16 12 0	8 5 0
B. Somers	14 0 0	8 0 0
J. T. Treffry	21 *cwts.* 16 1 6	—
Amount of sale	£646 9*s.*	

LEAD ORES

TICKETINGS FOR ABOUT 110 TONS LAXEY LEAD ORE.

Douglas, Isle of Man. Feb. 3.

Buyers.	*Offer per Ton.*
Sims, Willyams, Nevill, and Co. (purchasers)	£18 15 6
Walker, Parker, and Co.	18 11 0
Mather and Co.	17 14 0
Newton, Keates, and Co.	17 10 6
Thomas Somers	16 16 6
Tamar Smelting Company	16 13 6

TICKETINGS FOR ABOUT 100 TONS (20 CWTS.) NEWTONARDS LEAD ORE.

Douglas, Isle of Man, Feb. 3.

Walker, Parker, and Co.—Chester	£9 1 0
Newton, Keates, and Co.—Liverpool	8 16 0
Sims, Willyams, and Co.—Llanelly	8 5 0
Tamar Smelting Company—Tavistock	8 2 6
Thomas Somers—Bristol	8 0 0

Ticketings at the White Horse Hotel, Holywell, February 8.

Mines.	*Tons.*	*Amount.*	*Purchasers.*
Talargoch	88	£9 11 0	Walker, Parker, & Co.
ditto	24	10 1 0	Mather & Co.
ditto	50	10 2 0	Walker, Parker, & Co.
Brynford Hall	3	10 3 0	J. P. Eyton.
Hendre	40	9 12 6	Newton, Keates, & Co.
Fronfowmog	60	10 1 0	Walker, Parker, & Co.
ditto	10	11 1 6	J. P. Eyton.
Deep Level	55	9 11 6	Newton, Keates, & Co.
Douglas (Isle of Man)	39½	10 5 6	Walker, Parker, & Co.
Foxdale ditto	35½	17 1 0	ditto
Aberystwith	10	9 6 0	J. P. Eyton.
Cairnsmore	40	9 6 6	ditto
Sold at the Mine.			
East Wheal Rose	54	£15 6 6	Tamar Company.
ditto	8	10 1 6	Sims & Co.
ditto	24	14 14 6	T. Somers.
ditto	6	5 15 0	Sims and Co.
ditto	76	11 6 0	R. Michell & Son.
ditto	49	11 9 0	ditto
ditto	45	11 9 0	ditto
Sold at Liskeard.			
Herodsfoot	100	£11 1 0	Walker, Parker, & Co.
Sold at Aberystwith.			
Cwmystwith	20	£9 5 0	Bristol Company.
East Logylas	80	9 11 0	ditto
Sold in London.			
Callington	78	£17 3 6	Tamar Company.

BLACK TIN

Sold on the 1st of February, to J. H. Enthoven & Co.

Mine.	*Tons*	*cwt.*	*qr.*	*lbs.*	*Price per ton.*	*Amount.*
Ashburton United	4	10	3	20	£51 0 0	£231 17 4
ditto	0	10	3	23	35 12 6	19 10 4

Total, 5 tons 1 cwt. 3 qrs. 15 lbs.—Amount of money, £251 7*s.* 8*d.*

COPPER ORES.

Sampled Jan. 24, *and Sold at Andrew's Hotel, Redruth, Feb.* 8, 1849.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Carn Brea	95	£4 10 0	Tywarnhayle	22	£2 3 6
ditto	92	10 9 0	Nancekuke	24	6 16 0
ditto	70	7 17 0	ditto	23	3 6 0
ditto	69	6 9 0	ditto	21	2 3 6
ditto	64	7 17 6	Par Consols	87	5 9 6
ditto	63	5 5 6	ditto	82	6 2 6
ditto	62	10 2 6	ditto	81	7 6 0
ditto	61	3 18 0	ditto	69	5 15 6
ditto	60	5 16 6	Wh. Agar	60	3 17 6
ditto	59	4 10 0	ditto	41	2 16 6
ditto	56	10 15 6	ditto	38	3 3 6
ditto	30	1 14 0	West Wh. Seton	57	5 6 0
Tywarnhayle	116	4 7 0	ditto	55	5 9 0
ditto	81	1 15 0	Wh. Tremayne	47	1 11 6
ditto	80	2 11 6	ditto	26	4 9 0
ditto	70	2 7 6	ditto	20	5 11 0
ditto	60	7 15 6	Wellington Mines	61	6 7 6
ditto	47	7 5 0	ditto	15	13 8 0
ditto	40	3 0 6	ditto	14	4 7 6
ditto	27	4 3 6			

TOTAL PRODUCE.

Carn Brea	781	£5354 16 6		Wh. Agar	139	£468 19 6	
Tywarnhayle	611	2473 4 0		West Wh. Seton	112	601 17 0	
Nancekuke				Wh. Tremayne	93	300 14 6	
Par Consols	319	1968 7 0		Wellington Mines	90	651 2 6	
Average Standard		£ 91 16 0		Average Produce		9	
Average Price per ton			£5 10 0				
Quantity of Ore	2145 tons.			Quantity of Fine Copper,	192 tons 19 cwts.		
Amount of Money			£11,819 1 0				

LAST SALE.—Average Standard £ 95 16 0.—Average Produce 7½
Standard of corresponding sale last month, 67*l.* 7*s.*—Produce, 8½.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	228	£843 1 3
Vivian and Sons	533	3262 5 0
Freeman and Co.	146	805 9 9
P. Grenfell and Sons	481	1840 9 0
Crown Copper Company	42	225 19 9
Sims, Willyams, and Co.	236	1158 18 9
Williams, Foster, and Co.	479	3682 17 6
Total tons	2145	£11,819 1 0

NO SALE on Thursday next, February 15.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria 1526—West Caradon 289—Fowey Consols 260—Wheal Friendship 242—Marke Valley 150—Bedford United Mines 116—West Wheal Jewel 66—Wheal Mary Consols 57—Wheal Pink 55—Holmbush 50—Treleigh Consols 50—Wheal Bucketts 46—South Wheal Fortune 31—Phœnix Mines 22—Tamar Slag 21—Polgooth 9.—Total, 2990 tons.

COPPER ORES

At SWANSEA, for sale, Feb. 15.—Cobre 77, ditto 71, ditto 66, ditto 57, ditto 55, ditto 70, ditto 65, ditto 60, ditto 47, ditto 53, ditto 62, ditto 54, ditto 80, ditto 53.—Burra Burra 58, ditto 56, ditto 51, ditto 49.—Glasgow Slag 82.—Vine Slag 20, ditto 15.—Total, 1211 tons.

THAMES TUNNEL COMPANY

The number of passengers who passed through the Tunnel in the week ending Feb. 3, was—No. of passengers, 17,603.—Amount of money, £71 1*s.* 11*d.*

CURRENT PRICE OF GOLD AND SILVER.

Foreign gold, in bars	per oz. £3 17 9	New dollars	per oz. £0 4 10½
„ Portugal pieces	0 0 0	Silver in bars (standard)	0 4 11½

ROYAL COLLEGE OF CHEMISTRY,

OXFORD-STREET, LONDON.

The PRACTICAL COURSE of INSTRUCTION in this Institution is under the direction of Dr. A. W. HOFMANN and assistants.

The NEXT SESSION will commence on WEDNESDAY, the 7th MARCH, and end on TUESDAY, the 31st JULY next.

The fee for students, working every day during the session, is		£15	0 0
„	„ Four days in the week	12	0 0
„	„ Three days „	10	0 0
„	„ Two days „	7	0 0
„	„ One day „	5	0 0

Hours of Attendance from Nine to Five.

Further particulars may be obtained on application to the secretary.

WILLIAM JOHNSON, Secretary.

TO CHEMICAL WORKS, AGENTS, &c.—The PROPRIETORS of a CHEMICAL WORKS in Glamorganshire are IN WANT of a COMPETENT MANAGER, well acquainted with the manufacture of all sorts of chemicals, charcoal, &c.—Address to "S. I.," Post-office, Swansea.—February 8.

NOTICES TO CORRESPONDENTS.

We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses; not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

We have been compelled to postpone the continuation of our remarks on the Electric Light; also an interesting notice of Christmas in the Sierra-Morena.

COPPER SMELTING.—"G. D." (Ipswich).—The first works were established at Bristol; but these have been long since abandoned. They were subsequently removed to Swansea, on account of its proximity to the fuel, which has hitherto remained the chief seat of the trade.

"Joseph Lupton" (Nelson-square).—We have received the calculations relative to the comparative economy of Lupton's propellor for steam-vessels, which make it appear that, in an engine working 12 ft. paddle-wheels, with 6 ft. floats, and going at the rate of 10 miles an hour, there is a dead loss of power equal to 75 per cent., owing to the continually retarding position of two or more of the floats, and other circumstances; while with Lupton's propeller, 2½ ft. in diameter and 20 in. wide, wholly submerged, above 9 miles per hour could be obtained, and continued without loss of power; and that, consequently, a 5-h. p. engine would be as effective as one of 20-h. p., with paddle-wheel propulsion. We must leave the subject for those who feel interested therein.

"A Student" (Cambridge).—Silenium was first discovered by Berzelius, in the copper ores from Fahlun; it is easily detected, by the blowpipe, from the strong arsenical odours it emits.

"Germanicus" (London).—The communication on the copper trade has been received. If 'Germanicus" will take the trouble of reading all that has been written on this subject, he will find that he has adduced no new matter; in fact, all that he has written has been so fully commented on by our correspondents, that it would be a work of superogation to insert his otherwise able article. We must, therefore, decline his communication, though we shall be happy to hear from him on any other topic.

"An Inquirer" (Birmingham) writes—"We read that, during the Roman empire, great quantities of silver were discovered in Spain. Are there any traces of the workings, or the furnaces, of those great people?" We have never heard of the discovery of any, but undubitable traces exist of the furnaces used by the Moors. One was discovered at Proaza, in the Asturias, in the year 1845, a description and sketch of which was published in our Journal in the month of July that year."

C. Fenton (Worcester).—The ores smelted by the company established at Hambaugh are all obtained from South America. No metal of any description, with the exception of bog iron ore, has been discovered either in Denmark or Holstein.

We are requested to state that, in the advertisement of Trenow Consols steam-engine, in last week's Journal, it should have been "10 *feet* stroke, equal beam," and not "8 feet," as announced.

"F. L." (Bristol) can obtain all the information he requires, by writing to any of the Government emigrant agents. With his qualifications, we should say South Australia was the best field for the employment of his talents.

"A Speculator" (Lincoln)—Mr. John England was the engineer appointed to survey the projected railroad, to connect Christiania with the upper provinces. The survey was completed the latter end of the year 1847. The unfavourable state of the money market since that period has prevented the projectors bringing the scheme before the public. Previous to this, the intended line was inspected by Messrs. Stephenson and Bidder, who reported favourably on the prospects.

CALIFORNIA.—"L. S. G." (Witham).—We recommend "L. S. G." to carefully read the accounts which have been published by ourselves and contemporaries, before he thinks of leaving the "ills he has to fly to others which he knows not of."

"A Lead Smelter" (Cromford).—The furnaces generally used in Germany are the hearth furnaces, and the material employed is charcoal.

AUSTRALIAN MINING COMPANY.—("A Mine Agent," Truro).—There must have been some mistake in the report, as the lode in the stopes is nothing like so productive as that in the 40. Forty to fifty tons were raised in October, which would be increased to 100 tons by Christmas.

"An Assayer" (Redruth) will find Platner's work on the blow-pipe a most useful book. A perfect apparatus, furnished with tests and reagents, can be purchased, in Frieberg, for about 7*l.* Any merchant who has connection with Hamburgh can forward it to England. It is very light, and neatly got up, and forms a perfect miniature laboratory.

GOLD MINES IN GEORGIA.—"C. B." (Wolverhampton).—A work is in the press at present, and shortly will be published, in New York, giving a full account of these workings, from their commencement until the present time.

"D. M." (Islington).—Osmium and iridium were discovered by Smithson Tennant, palladium and rhodium by Dr. Wollaston.

AGRICULTURAL CHEMISTRY.—We have received some observations on this subject from Mr. David Mushet; and much regret our inability to insert a communication from so able and valued a correspondent. Although our columns are open to, and embrace a large field of, scientific research and information, there must be a limit; the abstruse system of agricultural chemistry, important and highly interesting as it undoubtedly is, we think hardly an appropriate subject for controvery in our columns; and we are happy to find, as will be seen in another column, that Dr. Murray's opinion precisely coincides with our own.

H. Crosbie (Dublin).—We are not in possession of the information that he requires, but, probably, we shall shortly be able to comply with his request.

"Cinabria" wishes the address of Mr. Forbes, the proprietor of the quicksilver mines, California; or that of his correspondent in England.

"A Mechanic" (Maidstone) had better obtain some means of testing his invention in England, before he goes on the continent, as he will find capitalists there will have a great disinclination to listen to him, unless his project has been approved of here by some practical and competent judges.

Our report last week of Mr. Jesse Ross's specification of patent, for Improvements in Agricultural Apparatus and Propelling, was somewhat erroneously headed, "Improvements in Agricultural Apparatus"—the propelling invention being the only one described, the other being passed over *sub silentio*, as not being altogether a subject for our columns.

"An Ironmaster" (Forest of Dean).—There are several works established in Scandinavia, which deliver very good rough castings. The pig-iron is exported from Glasgow, and the fuel used is English coke. Although the peninsula abounds with iron, yet the roads are so bad, and, consequently, the transport so expensive, that it can be produced in the sea-port towns at a much lower rate than at the mines, notwithstanding the freight, insurance, duty, and other charges, the importer has to pay. The greatest quantity of the iron produced there is exported to North America, where it realises from $80 to $100 per ton. The famous Swedish iron produced at Danemora, and which makes the best cutlery, is shipped to Hull—a large mercantile firm there having had the contract for several years of their produce. The iron trade is regulated in Sweden by the Government: in order that the poorer mines should not be abandoned, the richer are obliged to diminish their produce—so that the market may not be overstocked, nor are they allowed to sell at a lower rate than fixed by the committee of the "Jern Värks Contoir."

"A Gas Engineer (Newcastle-on-Tyne).—Mr. Malam, of the Huntingdon and Whitby Works, took out a patent in the year 1846, for purifiers and condensers.

Received.—H. B. (Newton-Stewart)—Copper (Liskeard)—J. J. L. (Gosport)—W. P. (Regent-street).—A paper, by Mr. John Curr, on the "Defection of Mechanical Science in the Nineteenth Century, and its Application, in order to produce a maximum effect."

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 10, 1849.

The assembling of the Imperial Parliament for the dispatch of business, is an event equivalent to an era in the annual history of Great Britain. Parliament is the great constitutional court, the august tribunal in which the complaints, the claims, and the privileges of 25,000,000 of people are audited, adjusted, and enforced. The functions of this supreme court are, in a large sense, political as well as legislative; and, indeed, it is as much the business of Parliament to control

second place, some stringent measure is urgently called for securing the better ventilation of coal mines, and the increased safety of the lives of those who work in the great coal seams of England and Wales. We cannot continue to have the workmen killed off by fifties. We claim it of the justice, as well as of the humanity of the Legislature, that the coalmasters should be laid under an obligation at law, to see to the cleanliness and ventilation of the mines, by the neglect of which they have heretofore been accessary to so lamentable a waste of life. We commend this double subject to the consideration and diligent activity of some Member of Parliament, trusting he will consult the Government, and obtain its important concurrence to the introduction of a measure, securing the valuable objects we have briefly referred to.

During the commercial crisis, when cash alone bore a premium, and mining and almost every other description of property was at a discount, we ventured to prophecy, *malgré* the croaking of the few and the fears of the many, that for mining there was "a good time coming." Those, therefore, who weathered the storm, and can now look with satisfaction upon the extraordinary rise that has taken place in the value of their shares during the past few months, we congratulate most heartily; and, whilst we take credit for our prophecies of the past, prognosticate for the future a continuance of success. The gold of California has turned the heads of many, and opens to all a wide field for speculation and discussion. That it may produce changes in the standard value of metals, and in the currency of this country, we do not doubt, but shall leave the nice points involved in the question to be discussed by subtler heads, resting satisfied ourselves, that (leaving out of the account the influx of gold) the impetus given to trade, and the consequent demand for other metals, will aid materially our Coraish mines, the prosperity of which comes nearer our hearts and our sympathies than the "*auri sacra fames*" that concentrates itself in digging and pillaging on the banks of the Sacramento. We have heard many learned men and knowing speculators—those who (by applying their eyes to the hole in the middle) can see through a mill-stone, declare that all fixed property must fall, and that we shall soon have sovereigns for ten shillings. Be it so—lead, silver, copper, and "tin" will be the more valuable, already the latter metal has risen 14*l.* per ton; the demand for lead, especially that containing silver, is increasing, and we hope, notwithstanding the fears of the smelters, that copper will soon improve in price and in consumption. The more gold brought to England, the more "copper bottoms" will be required to bring it. We commenced this article, however, merely to notice the favourable change in the aspect of mining property. The difficulty is not now, as we are told on all sides, to find purchasers, but to find shares for sale; whilst the rise in many has been from 50 to 100 per cent. We forbear giving names, as it might seem to savour of partiality; but we are gratified at the fact, inasmuch as it tends to promote the welfare of our large mining population, and shows to the capitalist, that when well conducted, and we would refer to only such, there are few means of so profitably employing spare capital, as in the dividend-paying mines of this country.

In the MINING JOURNAL of the 27th ult., we noticed an official communication on the subject of the discovery of coals in the Straits of Magellan, and much as has been hazarded on the subject of the working out of the coal measures of Europe, and the destructive effects to manufactures and commerce which must necessarily ensue therefrom, it would appear such fears are groundless; and that as man pursues his unceasing pursuit in the discovery of new climates and untrodden lands, fresh deposits of this highly valuable mineral are continually rising up before him. In the early history of steam navigation, the principal objection raised against long voyages, was the difficulty of carrying sufficient coals for fuel, or of establishing the necessary depôts to enable ships to obtain a fresh supply; and one of the largest items of current expense with which our great steam navigation companies have to contend, particularly the Peninsular and Oriental Company, in their navigation of the South Pacific Ocean, is the establishment and support of the necessary coal stations at the various islands at which they touch in their varied and chequered course, after leaving the Cape of Good Hope for India, China, Australia, &c. The great discovery of coal in Borneo, and its adjacent island Labuan, will prove of immense advantage to the interests of steam navigation; this will be materially aided by that on the shores of Magellan, and steam vessels from India to the Japan Islands, or the western shores of South America, will now be enabled to replenish their carbonaceous stores at Talcahnano, and Colcurra bays, near Conception, Chili, or at Vancouver's Island. We have received the report of Sir H. T. De la Beche, on several specimens of lignite from Sandy Bay, Patagonia, coal from Talcahnano and Colcurra, on the Chili coast, and from Vancouver's Island. The lignite from Patagonia he describes as being a good variety of that fossil fuel, although containing a large quantity of ash, and may be advantageously employed for steam purposes; this is a most important discovery, as should the beds exist there in sufficient abundance, nothing could be better situated for facilitating steam navigation round Cape Horn. The Talcahnano is a very fair average coal, while the specimen from Colcurra Bay is said to be equal in evaporative power to good Newcastle coal, as judging from the analysis. The specimen from Vancouver's Island is true coal, but contains much earthy matter; this may arise from being taken from the outcrop, and may be only from one of the several beds supposed to exist in that island. The whole of the specimens are, however, perfectly well adapted, more or less, for steam navigation. From the analysis of Mr. LYON PLAYFAIR, the Sandy Bay lignite contains 62·25 of carbon; the coal from Tulcahnano 70·71, from Colcurra 78·30, and that from Vancouver's Island 66·93; they contain generally, and in the usual proportions, hydrogen, oxygen, &c., without any remarkable difference. Those from Chili very much resemble the Cannel coal of this country, being hard, uniformly black, and having a somewhat conchoidal fracture. These several discoveries of extensive deposits of chemically valuable coal, are subjects of the utmost importance to the steam navigation of the world, and will, probably, at a future day, reduce the cost of distant passages to no inconsiderable extent. It will be seen in a notice on the coal of Labuan, in another column, that the cost of the Peninsular and Oriental Company, for coal alone, being principally English, is 130,000*l.* per annum, which the development of these deposits, would probably reduce one half.

The *Aberdeen Herald* is greatly annoyed, because it imagines that we have been anxious to divide an honour to which it considers itself solely entitled, among its other local contemporaries. We can assure it that such was by no means our wish. We are quite willing that it should have the credit of that "something respectable," which belongs to the connection with "such an influential body" as the clique; but we will merely add one or two of the reasons which induced us to state, that the "body" alluded to had, "*more or less*," an influence over the two or three papers in Aberdeen. We believe that a certain gentleman, not altogether disinterested in the "venerable contemporary," is a director of the North British Australasian Company; and, therefore, we could understand that he might see the truth of the common adage, that "those who live in glass houses should not throw stones." And, again, we have always understood that the "*Gazette*" was the offspring of a branch of the *Herald's* patrons; but perhaps we are wrong. It is, however, of little importance; and we will give it the full benefit of being "the organ of the clique," glady confess to all the other local papers the mistake we laboured under, and entirely exclude them from the "baneful influence," as the *Herald* terms it. But our contemporary advises us to be instructed "a little better in the history, character, and constitution of the body of Aberdonians who get this designation;" and, adopting one of its Scotch proverbs, it observes, that "ilka dog has its day." From this we were inclined to infer, that "the influential body" had been the authors of many successful undertakings. Our northern friends may give a different meaning to the proverb, and include even those who try "sometimes to carry matters with too high a hand," and to whom Aberdeen owes more "than all the rest of its citizens," whatever may be the losses sustained by those who were tempted to embark in undertakings which promised "a handsome annual dividend." It is very easy to raise funds to accomplish objects of general advantage, which are also represented to yield a profit of "9½ per cent."

We have taken our contemporary's advice, and the result is the following list of schemes, promoted by the "clique" and their friends, or with which they have become connected. We have taken the amounts paid, and the present prices, from the "*Aberdeen Share List*, published by authority of the Committee of the Stock Exchange:"—

	Amount paid.	Present price.	Disct.
NORTH OF SCOTLAND BANK	£5	£3	£2
NORTHERN ASSURANCE COMPANY	1	17*s*	3*s*
ABERDEEN STEAM NAVIGATION COMPANY	6	£5 9*s*	11*s*
ABERDEEN MARKET COMPANY	1	14*s*	6*s*
[The original prospectus held out a dividend of 9½ per cent. Paid off liabilities in 1846, by the receipt of 30,000*l.* from the Railway Company for ground for station.]			
GAS LIGHT COMPANY	£3	£2 16*s*	4*s*
[Old and New amalgamated, and no competition.]			
ILLINOIS INVESTMENT COMPANY	1	2*s* 6*d*	17*s* 6*d*
[We believe this company paid a dividend of about 40 per cent. the first year, then issued new shares at 50 per cent. premium, and is now being wound up.]			
NORTHERN INVESTMENT COMPANY	2	10*s*	£1 10*s*
[For lending money on railway scrip, &c.]			
NORTH BRITISH AUSTRALASIAN COMPANY	1	4*s* 6*d*	15*s* 6*d*
ABERDEEN RAILWAY COMPANY	50	£15	£35
[The price given to this is that of the 27th Dec. last, when the clique and their friends were turned out of the direction.]			
ALFORD VALLEY RAILWAY COMPANY	3	—	—
[The last price, we believe, was 2*l.* 6*s.* or 2*l.* 14*s.* dis.; but there is no present price.]			
DEESIDE RAILWAY COMPANY	5	—	—
[Not now in the share list.]			
GREAT NORTH OF SCOTLAND RAILWAY COMPANY	£2 10*s*	1*s* 6*d*	2*l* 8*s* 6*d*
DITTO EXTENSION	£2 10*s*	—	—
[Not now in the share list.]			

We shall now take the liberty of asking our contemporary, in return, what *it* thinks of the position in which it has placed itself? How much the capitalists of Aberdeen are indebted to those gentlemen who have done more for the town than all the rest of the citizens! We believe, however, that the eyes of the "citizens" were opened long 'ere this, and that they have found their private finances by no means improved by the local modes of investment, held out to them for some years. Does our contemporary recollect the celebrated "improvement scheme?" Does he also remember the *two* meetings on the subject, held on the 25th January, 1847, and the result of *both?* At one of them, Mr. SIMPSON, who supported the majority (which was very large), observed, "that we had seen these gentlemen bringing forth schemes for years past, and he would now reason by analogy, that as many of these schemes had fallen far short of the prospects originally held out to the public, he could have no faith in their calculations as to the present scheme. First came the Illinois company, promising bright prospects, which, after dancing for awhile as an *ignis fatuus*, and alluring others, had at last sunk very low. Then arose the market company, which produced a mere nothing, till it was determined that the railway terminus should be near them, &c., &c." The *Herald* understands the whole affair, however, better than we do.

It is no excuse for our contemporary to plead, that "some of the bitterest opponents of the clique have been the promoters of both home and colonial companies, that are not in quite so good a condition as even the Aberdeen Railway." This is a strange mode of argument, to overlook one man's errors, because there are others as bad, or worse! But we will take two parallel cases—the two Australian companies, the Scottish Australian and the North British. Both were established about the same time, and had to encounter the same colonial difficulties; yet the former, which is managed by an independent number of Aberdeen gentlemen, regularly pays a good dividend, and the present price of the shares is 15*s.* 6*d.* in 1*l.*; whilst the latter, with which the clique are connected, paid a dividend the first year, but none since, and is now selling at 4*s.* 6*d.* in 1*l.* Neither had the Scottish Australian any Island of Kawaw, with its "extraordinary discovery" of copper ore, which, by proper management, would have assisted them so very materially.

But the *Herald* says, that the North British Australasian is not a clique institution. Will it answer this?—Who were the *original* promoters?—and will it deny that four, at least, of the directors mentioned in the Deed of Copartnery belong to the category which form that class? But it must also remember that this company was one of the first concocted by those gentlemen, and it was not likely they would drag their colleagues into all their future schemes; and, therefore, the present board may include men who are not, what may be expressively termed, "out-and-outers." But, again, are the managing directors, or cashiers, as they are called, not cliqueites? Will the *Herald* be so bold as to deny this?

Our contemporary also remarks, that it was "in blessed ignorance" of our repeated comments of late on the affairs and management of this company. We can only say, that "when ignorance is bliss 'tis folly to be wise," and we think that the *Herald*, for its own sake, had better have remained in its blissful state. We are told that we have taken the assets for the liabilities, and we are graciously informed of our mistake; but is the *Herald* aware, that either the inhabitants of Aberdeen must all be "blockheads," or, at all events, that portion who are shareholders in this concern, or otherwise the company's accounts must be kept on a system of book-keeping not generally known? *We* have not the opportunity of going "directly to the cashiers," and making "the necessary inquiries," to authenticate any particular which those immediately interested do not comprehend.

We repeat that *we* cannot thus pretend to our contemporary's advantage in this respect; but we must inform him, that we have received numerous letters from Scotch shareholders, who unanimously declare their inability to understand the company's accounts at all, and who add that they can meet with no one who does. From the very frequent communications we receive on the subject, we do not believe that nine out of ten of the shareholders are acquainted with their actual position in this undertaking. We are glad, therefore, that we have been able to obtain for them an "official" explanation on one point.

We are next informed, that the directors refused nothing whatever to the late meeting; but none knew better than our contemporary's friends, that the directors of a company have power to do many things, which those out of the direction need not attempt; and, therefore, when we say that they refused to publish the reports, and to read the financial statement, we mean that it was the expressed wish of the directors, who naturally made use of their position to carry their point, just as the minority of the railway directors would have done, if they had got their colleagues to acquiesce in their "celebrated claim." We can easily imagine the recapitulation of the great services rendered to the company in the latter case, &c., if the shareholders had ever been called upon to sanction the compensation desired. The defence offered on this point is exceedingly lame. But the *Herald* endeavours to impose upon its readers, by asserting, that we are acting the partisan in this matter; and that the report of the meeting, which lately appeared in our columns, was a "garbled, partial, dishonest, document."

Now, we have looked carefully over the columns of the *Herald*, but we have been unable to discover the slightest allusion to the North British Australasian Company, and much less any mention or report of the meeting. In what capacity, therefore, the writer attended the meeting, we are left to conjecture. That he did do so, must, of course, be presumed, as he has expressed an opinion on the correctness of our report. If he attended as a reporter, why did he not furnish the shareholders with an account of the proceedings through his columns? If otherwise, we have our own opinions as to which side the charge of partisanship more truly applies. But our contemporary is mistaken in his assertion, that we have any personal object to serve, by supporting either party. If matters are misrepresented, the directors are to blame for it, for it is their duty to themselves, and to those for whom they are trustees, to correct misstatements, which arise from a want of the usual means of obtaining correct information, through the publication of periodical balance-sheets, and the reports given by the press, who are allowed to have their representatives at all meetings of companies, desirous of having their position correctly and fairly understood. For, as the *Herald* truly remarks, this is a *public* company, and we do think it part of our duty to protect the interests of the public.

We shall, probably, recur to the subject soon; but, in the meantime, we must have done, only adding, that we shall be happy to hear any party interested in the matter, and to afford him an opportunity of giving such explanation as the case may demand. It is far from our wish to exclude the directors from vindicating themselves.

The case of the Wheal Lovell Mining Company, noticed in our last, is one of too much importance to be allowed to pass without comment. Briefly to recapitulate the case, it is simply this—Mr. WYLD takes 5 shares in a mine, which is divided into 500 shares and thus becomes the holder of one hundredth part; he subsequently finds that the whole of the shares are not subscribed for, the number being only 350, or 7-10ths taken up, whereby his responsibility is increased in a like ratio. Certain transactions as regards the purchase of part of the property, in which the purser was interested in more ways than one, would also appear to have determined Mr. WYLD on not paying the calls made on the shares so held by him, feeling that there were strong grounds for objection to the course pursued by the parties. The consequence was, that being a defaulter, although ample funds were in the hands of the purser, Mr. WYLD, in strict accordance with the Cost-book System, is the adventurer selected against whom one of the creditors of the company should take proceedings for the recovery of his claim, any adventurer, no matter how small an interest he may have in the mine, being liable to the whole amount of the debts or responsibilities of the mine. An action having been brought in the Court of Exchequer against the party for an amount due, being for materials supplied, the question was raised on the part of the defendant as to his liability. The Cost-book was put in, which we contend could not be received as evidence in any other than the Stannaries Courts, where alone the Cost-book System is recognised, inasmuch as the courts at Westminster, if we are right in the opinion we hold, cannot admit such evidence, simply from the fact that they are ignorant of, and do not acknowledge the Cost-book System. In this instance, however, the Chief Baron received the Cost-book with the *viva voce* evidence of the captain or agent of the mine, while we have reason to suppose the Cost-book had been subsequently stamped, and the penalty paid, so as to render it an agreement. Admitting the document under such circumstances to be legal, we think that two questions naturally arise, the one—that of an agreement entered into, whereby the party confines himself to the liability of one 1-100th part, or share of the undertaking, while the whole of the shares of the company not being taken up to the extent proposed, at once throws upon him the onus or responsibility of a greater proportion than that for which he had engaged. The other—that the Cost-book cannot be received in evidence in our law courts, as in all transfers entered therein, a nominal consideration is only required, and hence any transaction not being under the stamp duty, can only be received in the Vice Warden's court, or it would otherwise subject the parties to the penalties under the Stamp Act; thus, it is quite clear, according to our notion, that the Cost-book could not be put in evidence, and that his lordship was wrong in so admitting it,

The instructions to the jury were, however, of a decided character, and a verdict for the plaintiff was given for two-thirds the amount claimed.—a question having been raised as to the liability of the defendant to pay for any debts contracted after he had given notice of his relinquishment of the shares held by him. This point the counsel, on both sides, very prudently avoided entering upon, it being one which, we believe, would have been neither understood by the learned judge, or the jury, and which would, moreover, have occasioned the one and other of the learned counsel much legal argument, without any results arising therefrom. A verdict having been given, whereby the defendant was held liable for the payment of the plaintiff's demand, the next procedure was that of an application to the VICE-CHANCELLOR, under the provisions of the Joint-Stock Companies' Winding-up Act, to declare the company bankrupt, they not being able to meet their engagements; or, on the other hand, that they should meet the payment of the claim made, subject to the defendant paying his proportion thereof. An appeal from such order was subsequently made to the LORD CHANCELLOR, whose decree was given at length in our Journal of last week, reversing the order of the VICE-CHANCELLOR, and thus admitting the correctness of the directions given by the LORD CHIEF BARON of the Court of Exchequer. We are given to understand, that the case will be carried into the House of Lords, whose decision, we should not be at all surprised, will even stultify the Legislature and the learned judges. We have adverted to the proceedings, and thus entered at length on the subject, anxious as we are to see some legislative enactment carried out, which shall determine what is, and what is not, the "Cost-book System;" for we believe, in the absence of any direct law being laid down, and, moreover, the system, not being clearly understood, misrepresentation is too oft put forward, which, in the end, is attended by evil consequences. The Joint-Stock Companies' Registration Act was supposed to be perfect, but we have no hesitation in saying, not even the Registrar himself understands its clauses, nor is there a member of the bar who would undertake to determine certain points, which we have ourselves submitted to the authorities, without being able to arrive at any satisfactory conclusion. We believe that a measure will be introduced into the House of Commons at an early period of the session, and, can only say, it will have our ready and earnest support, as we believe it will secure that of every honest adventurer, who wishes to see mining enterprise legitimately carried out.

The Government officers having visited the scene of the late fearful colliery explosion at Barnsley, the inquest has been resumed, and additional evidence taken; but, judging from that now before us, we are apprehensive that the verdict will be "Accidental death," and that the jury have no evidence before them on which they can arrive at any conclusion as to the cause. That such will be the result we augur, and much do we regret that laws do not exist which shall enforce on the colliery owner and the agent the adoption of those provisions, and pursuing such plans, as shall at once, if not secure, at least protect, the life of the miner and collier.

It would appear from the evidence, so far as it has already been taken, of the underground agent, as also two of the working colliers, that the system pursued in this, as well as in many other cases, is most loose—the safety-lamp, we find, is employed, but without any precaution being taken as to the avoidance of that protection which it is intended to afford. In many instances, we find, the collier works with a naked candle; while in others, where the lamp is employed on account of the insecurity attendant upon the state of the colliery where fire-damp is known to exist, the top of the lamp is removed, so that a better light may be obtained—thus defeating the object in its employment. That the accident arose from some such proceeding, we believe no doubt can be entertained, although, unfortunately, none are living who can give evidence as to the real cause; while the effect is too sadly demonstrated to call for remark. The fatal results arising from the absence of any legislative enactment, whereby collieries should be placed under the control of Government officers, is self-evident, but which we believe must necessarily be adopted, such officers being, as we would suggest, colliery viewers in the several districts, and we doubt not, upon the present inquiry being carried out, that such will be the result. The absurdity of giving the collier a safety-lamp, with the power to remove that guard, which is placed in his hands for the security of life and protection of property is manifested in the present instance. Had the lamp been properly secured by a lock or fastening, so that the collier could not have rendered it unsafe by the removal of any portion, so as to obtain a greater light, such would doubtless have prevented the present, as well as many of the former accidents of a like nature.

That the DAVY lamp does not give a sufficient light is admitted, and hence the several improvements noticed in our columns; while the question of safety has been at all times raised, as preventing their general use—that of the DAVY lamp, whether from prejudice or otherwise, being held as the most secure. We are well aware that, in many of the coal districts, millions of tons of coal would remain unworked and unproductive to the owner, if that the safety-lamp was not employed; and hence the necessity of a law being passed, whereby it should be imperative in such cases that care is observed in rendering it, as its name would imply, a *safety* to the collier. It is not our intention, on the present occasion, to enter further on the subject, reserving our further remarks until the verdict of the jury shall have been given; but we do trust Mr. TREMENHEERE and Mr. W. W. SMYTH, who have been appointed by the Government, will draw the attention of the Legislature to the subject, to which we have thus briefly adverted.

THE DUTIES OF GOVERNMENT DEPUTIES ATTENDING INQUESTS.

Some misapprehension appears to exist, as to the duties of gentlemen, deputed by the Secretary of State to attend the inquests held on the bodies of those killed by colliery explosions, and conclusions unfavourable to Government interference have been drawn from the unsatisfactory results which have hitherto attended it. At the inquest held at Neath, in March last, and which was attended by Mr. Warrington Smyth, on behalf of the Government, he stated "it was not intended by Sir George Grey that he should give evidence at the inquest, the subject being connected with a locality with which he could not be well acquainted. The object of his visit was to be present at the inquest, take such notes of the evidence as he thought proper, and to make such observations as the experience he had in the investigation of circumstances attending similar accidents might dictate, as well as to render all the assistance in his power, and make suggestions to the court as he might think would promote the object of the inquiry. In the second place, he was authorised to institute inquiries and elicit facts, in addition to those appearing at the inquest, and also to make a personal inspection of the works, should that be deemed necessary. In the third place, he was to make a private report for the information of Sir George Grey, and this report might, or might not be, made public, as may be determined on. The coroner remarked that they were exceedingly obliged to Sir George Grey, for the prompt attention paid to the communications which had been forwarded to him, and he was confident that the jury, as well as himself, would feel great disappointment on learning that Mr. Smyth was not to give evidence at the inquest." The disappointment was also felt by the magistrates and inhabitants generally. The evidence was incomplete and unsatisfactory, and that of the Government agent was anticipated with deep interest. His being unconnected with the locality was in favour of his impartiality, and great reliance would have been placed on his evidence or statements. Under these circumstances the jury was placed in some difficulty, as the coroner has no funds at his disposal for obtaining engineering assistance. Two gentlemen of the neighbourhood were ultimately requested to inspect the works and give evidence respecting them and the probable cause of the accident, with the understanding that neither the coroner or jury were to be responsible for the payment of their services, in case such was refused by the county magistrates. This was cheerfully assented to by the parties named, and their charges were allowed by the magistrates at the ensuing quarter sessions, and paid. We are not aware that Mr. Smyth's report in this case has been yet printed; had, therefore, remedial measures been delayed until the then existing evils were made manifest by its publication, it is probable that many more lives might have been sacrificed by the delay. And it is evidently expedient that the coroner should have power to cause to be paid, as well as to employ, such professional assistants as may be indispensably necessary to a full elucidation of all the facts.

NEW MINE VENTILATOR.—A very ingenious machine, invented by Mr. W. P. Struvé, C.E., of Swansea, has been erected at the Eaglesbush Colliery, near Neath, by which the use of a furnace is superseded, and an increased quantity of air circulated through the mine. It will be recollected by our readers, that an explosion occurred in this colliery in March last, by which twenty men were killed, and that the evidence given at the coroner's inquest, proved that the means for ventilation were imperfect and inefficient. The owners have since employed Mr. Struvé to improve the ventilation, who has erected this ventilator, for which he obtained a patent about two years ago. In the specification he states, that "it may be so constructed as to draw an almost unlimited quantity of air out of the mine, with the least possible resistance, and which, of course, will be as quickly replaced through the downcast pit." The trials which have been made with it during the past week, have, we understand, been very satisfactory. On its getting into full and daily operation, we shall again recur to it. It is creditable to the proprietors of Eaglesbush Colliery, to have been the first in affording the inventor an opportunity of testing the practical value of a discovery which, if successful, is of such great importance to the mining interests.

SULPHURIC ACID—ITS FORMATION AND CONSTITUENTS.—Prof. Davy, in a lecture at the Royal Dublin Society, said he had devoted a large portion of the brief time allowed him from other pursuits to the investigation of what appeared to him to be erroneous, though generally received, notions of peculiar phenomena in the elementary formation of the substance so widely and generally useful in the arts and manufactures, known as sulphuric acid. This substance, from its extended utility, had been the subject of investigation by men of the highest eminence in chemical art. It would appear that they had overlooked the manner in which this acid might be formed under different circumstances. Their opinions were generally received, their high authority had the effect of satisfying many minds and checking investigation, and thus perpetuated error. The learned professor then proceeded to detail the generally received opinions as to the formation of this acid, one of which was, that it could not be produced directly from its constituents, without the intervention of a substance capable of affording oxygen in sufficient quantity to complete its formation. For this purpose it was the practice in preparing the acid on a large scale, for the purposes of commerce and the manufacturing arts, to use nitrate of potass in large and expensive quantities, and the received opinion also was that the only product of the combustion of sulphur, even in dry oxygen gas, was sulphurous acid gas, but he would prove that by burning sulphur at a low heat, in oxygen gas, not only sulphurous acid was produced, but also true sulphuric acid, the latter forming in globules condensed at the side of the glass jar, the precaution of using a low heat preventing its being dissipated in the form of gas. The learned professor illustrated the above by an experiment which fully proved the correctness of his position, sufficient of strong acid having been obtained by the process to give a copious and well marked precipitate with one of the usual tests. He then proceeded to show that in atmospheric air the same result was produced. The *utile* of the essay consisted in pointing out the path to a far simpler, and less expensive mode of preparation of this substance so generally used in manufactures. He also exhibited a truly rare thing—a perfectly pure salt of the well known substance manganese, prepared by a process equally simple and practicable, and pointed out a product resulting from its formation, from which a pigment of the richest brown was obtained, and from the depth and permanence of its colour, recommended by him, some years ago, to be used in painting. He stated that this substance thus artificially obtained, often occurred naturally, and was found on the estate of Lord Audley, county Cork. It had since been used in coach painting, and formed the rich brown tint on the panels of some of the royal carriages. The learned professor intimated his intention of following up this subject at greater length on a future occasion.

NEWQUAY AND PAR RAILWAY.—The Newquay Viaduct on this line has been opened by J. T. Treffry, Esq., riding over it, and afterwards sending his loaded waggons across with supplies for the line beyond it. At a later period of the day, barley was sent over it for shipment at Newquay. The viaduct, an exceedingly light, yet very strong structure, is 98 feet high from the base of the piers, and 630 feet long. The line will be opened as far as East Wheal Rose Mine in the course of February. The Newquay and Par Railway will afford very great advantages to the trade and agriculture of Cornwall. It will connect the two Channels, and thereby obviate the inconvenience felt, more or less every winter, when coasters cannot safely come round the Land's End, not to speak of other benefits resulting from railway connection between the ports on opposite sides of the county. Traversing a valuable mineral district, it will enable the lead and iron mines in its course to ship their ores, and receive their coals and timber, in the easiest and cheapest way. The china stone and china clay, from St. Dennis and St. Stephens, can be sent direct to the potteries by a route more than a hundred miles shorter than that round the Land's End. To the agriculturists it will convey the necessary supplies of shell sand, and it may not be out of place to add, that the dues sought and conferred by the Act for the carriage of sand, are only two thirds the amount of those authorised by the Rock and Delabole Railway Act, which passed in the same session. Crossing the centre of the county, with facilities for branching on either side, it may be extended in every direction, as required; and, we believe, that if it should be thought desirable, there would be no difficulty in communicating with Falmouth harbour. The interest taken in the work would be imperfect, if it is not remembered that the undertaking is not created by a company, but owes its whole existence to the judgment, engineering skill, and enterprize of one man. Mr. J. T. Treffry himself laid out the line, and with no assistance but that of his own agents, levelled it, completed all the preliminaries which the Standing Orders of Parliament require, and obtained the Act, at a cost, for the Act and all previous arrangements and preparations, not of tens of thousands, but, of less than a single thousand pounds! The work has been carried on under his own directions and eye, and the funds for erecting it are supplied from his own resources.—*Cornwall Gazette.*

NORTHERN COUNTIES UNION.—A requisition has just been presented to the directors, calling upon them to convene an extraordinary meeting, to consider the propriety of cancelling the last call of 1*l.* 10*s.* per share, and to substitute in lieu thereof, one of smaller amount, and to make a repayment of the difference between the two.

WEST OF ENGLAND STEEL COMPANY.

We have received some additional particulars relative to the formation of this company, which we briefly noticed on the 18th January last, and which enter much more fully into the statistical history, and the character of the manufacture of steel, with the several descriptions of foreign iron imported into England for that purpose. After giving a description of the manufacture of steel, and tracing the manipulation through the various operations of cementation, casting, tempering at various heats for different purposes, &c., we are informed that our knowledge of the causes which produce the superiority of one description of iron over another, for the production of steel, is exceedingly imperfect; but, it appears to be the limited fact, that all the irons which experience has proved to produce the best steel are made from the primary ores of iron, smelted with wood charcoal; and that all attempts to produce good steel from English iron, made from the iron stone of the coal measures, smelted with coal or coke, have proved failures. The county of Devon can supply these primitive ores, in the shape of specular ore and hæmatite, in great abundance, with an efficient supply of charcoal for smelting purposes, to meet the annual production of steel iron, and to meet the wants of the country, at a price far below that now paid for the cheapest foreign iron used in the manufacture of steel in England. The quantity of iron imported for this purpose is about 30,000 tons, of which there are 80 distinguishing marks, divided by the Sheffield manufacturers into five classes. The first of them range from 35*l.* to 28*l.* per ton; the second from 27*l.* to 20*l.*; the third from 19*l.* to 17*l.*; the fourth and fifth from 16*l.* to 13*l.* The mean average of foreign iron for this purpose may be called 17*l.*; that of English, for the same purpose, 11*l.* per ton. It is calculated in Sheffield, that when iron, at 18*l.* per ton, is converted into coach-spring steel, the selling price, to be remunerative, ought to be 28*l.* per ton; when converted into single shear steel, it ought to sell for 40*l.*; double shear, 56*l.*; and cast in sizes, 60*l.* per ton. Now, it is estimated in this appendix, that coach spring steel, from native materials, can be manufactured and sold at 18*l.* per ton, with a profit to the company of 50 per cent; while the annual saving to the consumers, supposing the company had the whole supply, would be 60,000*l.* per annum. Cast steel could be made by the company at 20*l.* per ton, which, if sold at 35*l.* per ton, would realise a profit of 75 per cent., and save to the consumers 435,000*l.* per annum. It is not, of course, assumed that the operations of the new company will be carried to anything like the supply of the whole annual consumption of these articles in England; but as far as they are carried, the saving will be in proportion. It remains, then, to show the bearing of the proposed undertaking upon the interests of those who embark in it, and the amount of capital that may be profitably employed.

It is intended that the operations of smelting the ore, and conversion of the pig into bar iron, should take place in Devonshire. In the subsequent operations of converting the bar iron into steel, a very large quantity of coal and coke is required; and as it is much less expensive to send the iron to the fuel, than the fuel to the iron, it is intended that the steel operations should be carried on in South Wales, where localities may be selected, possessing decided advantages over Sheffield, for carrying on the manufacture of steel.

The coals used in the manufacture of steel in Sheffield, costs about 8*s.* 10*d.* per ton; and the coke for smelting cast-steel costs 12*s.* per ton. The price of fire-clay for cast-steel melting pots, costs, on an average, 36*s.* per ton in Sheffield.

In Wales, coals of the requisite quality can be had for 4*s.* 6*d.* per ton, coke for 6*s.*, and fire-clay for 20*s.* Labour and ground rent are both cheaper in Wales than at Sheffield; and it is calculated that the cost of producing a ton of cast-steel in Wales will be 3*l.* less than the cost in Sheffield.

It is estimated, that the total fixed outlay for works and machinery of all kinds, to produce 10,000 tons of steel yearly, will be covered by 50,000*l.*; and that for a floating capital, to sustain operations to this extent, 100,000*l.* will be sufficient. If to this be added 100,000*l.* for a reserve fund, and one-sixth of the capital to be appropriated to the projectors, the whole will amount to 300,000*l.*, of which 200,000*l.* will be employed in the operations of the company.

If the employment of 200,000*l.* enables the company to produce 5000 tons of coach-spring steel, and 5000 tons of cast-steel, and the profits on the former amount to 80,000*l.*, and the latter to 75,000*l.*, then the profits on the employed capital would be 105,000*l.*, or about 50 per cent.

Such are the results said to be arrived at on careful estimates, and should the effect of operations to this extent warrant their further increase, the reserve fund would be applied to that purpose; or provision might be made for a greater extension of operations, by making the original capital larger, or reserving a power of increase at any future period.

NICKEL MINES IN NORWAY.

These mines, which are situated in the valley of Espedal, in the province of Guldbrandsdal, are about 2000 feet above the level of the sea. They consist of several workings on each side of the lake Espedal. The principal mines are Andreasberg and the Little Mine; according to Hansteen, they were first discovered in the year 1632, and by Christian the Fourth granted to his illegitimate son, Count Ulric Frederick Gyldenlöve. Smelting works were erected in the valley of Svartsum, about seven miles from the mines. At that period they were worked for copper, but the ore being at a very low per centage, not averaging more than 1½ per cent., after a few years they were abandoned, and the smelting works destroyed. In this condition they remained, until a few years since, when Mr. Scherer, of Freyberg, professor of metallurgy, at the University of Christiania, first drew public attention to them. In conjunction with an enterprising merchant of Lillehammer, he obtained a grant of the mines from the Crown, and commenced the explorations anew; but not having sufficient capital to work them profitably, in the year 1846, they found themselves compelled to dispose of them. They were then purchased by the large firm of Messrs. Evans and Askin, of Birmingham, who are the present proprietors. Since the works have been in the possession of these gentlemen, a complete mining and smelting establishment has been formed, and there are employed in the different branches of the concern over 200 labourers. The smelting works, which are erected on an entire new plan, consist of three blast furnaces, worked by cylinders, and are adjacent to the lake, from which abundant water-power is obtained. The ores, which contain nickel, copper, and iron pyrites, are reduced into pigs; in this shape they are carted a distance of about 20 miles to the little town of Lillehammer, from whence, at a very inconsiderable freight, they are transported by steamer, on the large lake Miösen, to Minde, situated about 40 miles from Christiania; from this spot there is a good road, and in winter the carriage by sledges is comparatively trifling. On arrival at Christiania, the pigs are shipped to England, and the ulterior process of refining and extracting the nickel, is performed at their extensive establishment in Birmingham. In the event of the projected railroad between Christiania and Minde being carried into operation, a further and increased development would be given to this valuable property, and the cost of materials, fuel, &c., be sensibly diminished. The charcoal employed at present as fuel, is obtained, in some instances, 30 to 40 miles from the works, which is the only detriment under which the establishment labours. The proprietors have likewise, a free grant of what timber they require for building and mining purposes. The establishment is under the able superintendence of Mr. David Forbes rother to Professor Forbes, of King's College.

BARDSLEY COLLIERY.—On Tuesday, the 30th Jan., a second shaft was completed to that well-known seam of coal called the Black Mine, being 402 yards in depth, 11 ft. 6 inches in diameter, and walled with bricks from top to bottom. The sinking of both shafts were contracted for by Edward Morris, Thomas Morris, Samuel Stanfield, James Hibbert, and William Andrew, under the superintendence of John Hibbert, of Caime. This pit was sunk to the depth of 33 yards through a strong quicksand, where it remained some time waiting for engine power, and was recommenced July 13, 1846, and proceeded with great spirit and success, until it was again stopped for a period of 14 months by an overflow of water, producing upwards of 6000 gallons per hour; but being at length finally overcome, the work proceeded, without further delay, to its completion, averaging about 21 yards of sinking per month; and this, together with the other shaft, has been completed without any serious accidents having occurred, which is a surprising circumstance, considering the magnitude and dangerous nature of the works. East pit has a 70-horse high-pressure engine, erected for winding coals, made by Messrs. Walkers, of Bury. The above pits are the property of Jonah Harrap, Esq., of Bardsley, and will produce a large quantity of excellent coal for many years.

BALLYCASTLE COLLIERIES.—At a recent meeting of the Belfast Natural History Society, Mr. Gillan (from London), one of the proprietors of the Murlough and Ballycastle Mining Companies, produced several specimens of coal and ironstone from each of those localities. The former consisted of a steam coal, called the Owen, from a working seam of 2 feet 6 inches thick; anthracite or blind coal, also at work; and a rich blazing and bituminous coal, adapted for household purposes, from a seam of upwards of 3 feet thick. The specimens of the ironstone, especially from the Ballycastle mineral field, were remarkably rich in quality; but, that which attracted the greatest attention was a fine specimen of the Scotch black-band, taken from a continuous vein of 2 ft. 9 in. thick. There was also a nodule of the red hæmatite ore (similar to that obtained from the Lancashire iron mines), of great richness and fine quality. Mr. Mac Adam explained, at some length, the characteristics of the various specimens, and dwelt upon the new mining era which was about being opened up in the county of Antrim.

OPENING OF THE ENFIELD AND EDMONTON RAILWAY.—This extension of the Eastern Counties Railway at Edmonton, terminating after somewhat more than a two-length at Enfield, will be opened in the course of a few days. Satisfactory excursion trips have been made between the termini. It has been constructed at a cost of between 40,000*l.* and 50,000*l.* The steepest gradient is 1 in 87; the smallest radius of curve about 20 chains. The Act was obtained in August, 1846, but the postponement of the works was the result of the then general suspension of operations.

Original Correspondence.

GOLD MINES IN NORTH WALES.

SIR,—I have observed with considerable interest the remarks which have lately appeared in the *Mining Journal* concerning the gold mines in this part of the country. I am aware that the very idea of the existence of a gold mine in North Wales, has been regarded with great suspicion and distrust by the mining world in general; and I may further remark, that great prejudice exists against mining operations in any form in this neighbourhood. Knowing this to be the case, induces me to address you, and to confirm in every particular what has been previously stated in the pages of the *Mining Journal*, in reference to the gold mines of Cwm-heisian. With this explanation, I will proceed to give you some particulars which have come under my own observation; and, although my remarks may be found divested of the language of those more experienced in mining matters, they may at least merit some attention—being dictated by truth and justice. It is well known, that several eminent mining captains have at various times reported on mines in this part of the country, if a gallop —I can use no better term—over some miles of country in a few hours can be called a report. But, Sir, such is the case. Parties, professing a knowledge of mining, come into this country with the firm conviction that there is nothing to be seen; a hasty inspection is made, and shortly after appears the very careful report, which has cost them so much time and labour. I merely mention this to show the manner in which the latest of those reports were constructed.

Having resided some few years in the country, although but a young hand in mining operations, I have, nevertheless, from time to time, managed to obtain a knowledge of what was passing in the neighbourhood, more especially as regards the mines, and the existence of the precious metal. That gold exists in the auriferous ores of Cwm-heisian, and that in large proportions, is indisputable; and the many trials made at various times on the numerous lodes and veins, embracing a circumference of at least two miles, taken from the falls of the Mowddach, in almost every instance has gold been found, combined with ores of lead, sulphur, blende, and mundic. At the Cwn-heisian Mine, many powerful lodes, which have been traced for a great distance, here appear to form a bunch, or junction of lodes, from which some splendid stones, containing gold, have been taken within a few yards of the surface. I have seen the gold in some of the partially dressed ores, which was easily picked up; and, on washing a portion of the same on a shovel, the presence of gold in very large proportions could be plainly seen. The same results have been obtained by assays; but the great difficulty appears to be the separation of the gold from the ores with which it is combined. In reference to the cost of raising, dressing, &c., I think that no correct estimate can be made, compared with the ores of South America. I should think that the cost of labour and materials in South America is balanced by the presence of so many different metals, which must all be, more or less, operated upon before the gold can be obtained with any degree of purity. The large sum of money which has been expended by the proprietor to endeavour to obtain the gold by washing, has, in every instance, failed to accomplish the object—therefore, the aid of fire was resorted to; and, after many trials, carried on at great expense, a few pounds of gold was obtained, whereas I fear many were lost in the operation. In proof of this, I would refer you to the following remarks, which appeared in the *Mining Journal* of the 20th inst.:—"In order to prove the value of the ore raised, an experiment was tried on 300 tons of it, fairly broken from all parts of the mines; the whole quantity was concentrated into 10¾ tons of washed ore, containing 84·487 grs. of gold, or 176 ozs. troy—giving an average of 16 ozs. and a fraction per ton of washed ore, or 281 grs. of gold per ton of raw ore." Now, Sir, does it not appear, considering the expense already incurred in obtaining a few pounds of gold, that it would have been worth while to continue operations until the whole of the 176 ozs. had been obtained? Everything being ready, the expense surely would not have been much, considering the advantages to be gained. In this case, the spirited proprietor would have good cause to be highly gratified with the results; as the case now stands, I fear the greater portion of this quantity has been wasted. The great fault in all these operations has been the want of proper system and method in carrying them on, and also a very imperfect knowledge of the process of smelting and refining. My reason for mentioning these circumstances thus minutely, is to endeavour to show that the capabilities of the mine have never yet been fairly tested. I have every reason to believe that, when the mine is put to work in an efficient and proper manner, very large returns will be made; but a good board and management is necessary to the carrying on of the works; without this, no profitable results can be anticipated. No doubt, when the valuable resources of Cwm-heisian are fully developed, other mines in the neighbourhood will be taken in hand, as there is every facility for working, with abundance of water-power easily available.

I had purposed, in my present communication, giving you some account of a mine which has been lately put in operation in the valley of the Mowddach, on a course of very rich argentiferous ore, giving, on an average, 86 ozs. of silver per ton of dressed ore; but I fear I have already trespassed too much on your liberality; therefore, with your permission, will defer any further remarks for the subject of a future communication. In conclusion, I may add that, whatever may be the opinion with regard to mining in this country, I trust the time is not far distant when substantial proof will not be wanting to confirm the truth of the above remarks.

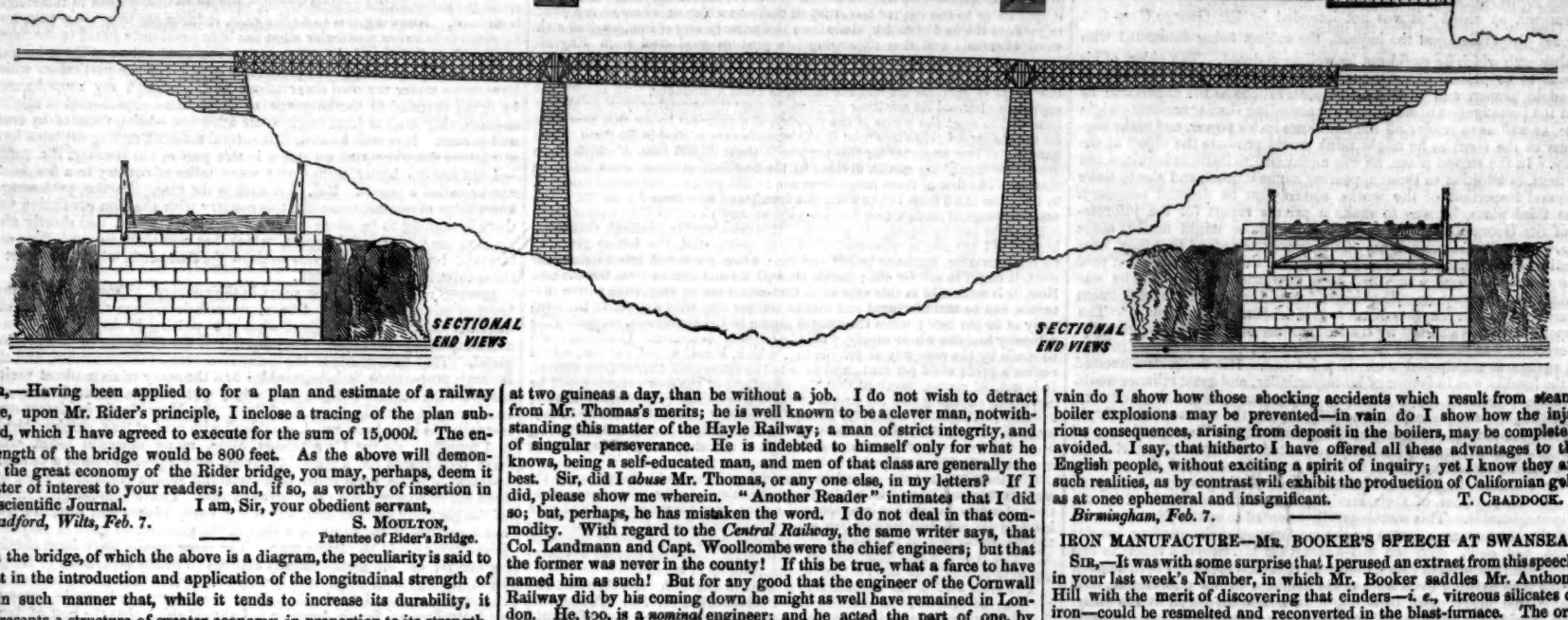
Dolgelly, Feb. 2. CREDENDA.

THE MONMOUTH AND GLAMORGAN BANKING COMPANY.

SIR,—The very general mismanagement of joint-stock companies has been so frequently and ably exposed in your excellent Journal, that you will be but little surprised if I add another to the numerous catalogue—one so replete with gross mismanagement, that it has been surpassed by none preceding it. The directors of the Monmouthshire and Glamorganshire Banking Company, of which I am an unfortunate shareholder, some time ago advanced a considerable sum of money to the Victoria Iron Company, and, being unable to obtain payment for the same, took to the works, which, for the last five years, they have been carrying on *for*—I may rather say, *against*—the bank. The directors, some time since, were offered a much larger sum for the works than they cost them; and yet, contrary to all faith with the proprietors of the bank, they have persisted in continuing this extra liability, to the injury of the best interests of the bank, and *totally at variance* with the objects for which we shareholders advanced the capital, and most *decidedly adverse* to all *legitimate* objects of banking. The consequence of all this is, that we have another call made—not because the business of the bank is increasing, for it is sadly *decreasing*, but because this Victoria Iron Company is consuming its very vitals. Not long since, a large iron-work, in the neighbourhood of Abergavenny, removed its banking account from the branch bank of the Monmouthshire and Glamorganshire Banking Company, disgusted with the arbitary system pursued towards them, and unquestionably feeling that this system was pursued the more from either party being in the iron trade; and I warn the shareholders that, unless an alteration be made, and *speedily too*, others will follow, and the business of the bank become so restricted that, without the Victoria Iron Company hanging heavily to its debit, it will be unable to pay its way, and more principal than ever be required to pay the false dividend to the shareholders.

I ask you, Mr. Editor, whoever heard of iron-works being carried on, without a balance-sheet being, at least, annually produced to its shareholders? and yet such is the case here. In the balance-sheets sent forth to the shareholders of the bank, a most wholesome silence is kept as to the Victoria Iron-Works; such a name does not appear to exist; all is jumbled up in one banking account, and what the iron-works lose the bank must pay. Is this straightforward honourable conduct on the part of our management? *That which will not bear the daylight cannot be right.* I can conceive no other reason for retaining possession of these deplorable iron-works, than that it enables the directors to give good births to their friends, and to the *sons of their friends*. Brother shareholders; if you wish to avert ruin from the bank, you must not submit to this gross conduct any longer. The purpose for which you advanced your capital has been abused, and your best interests sacrificed. There is a court which can prevent this abuse of power, and, much as Chancery is to be dreaded, it will be better to go there than submit to the directory any longer. In the meantime, do not slumber on as you have done, but flock to the meeting to be held at Newport on the 14th inst., and there respectfully, but *strenuously*, and with one voice, support such measures as shall be proposed to avert further evil. On no account respond to this call of 8*l.* per share; it will be money wasted: let the only call be upon the management, to give a clear and *true* account of their stewardship.—A LOVER OF DAYLIGHT: *Feb.* 7.

THE "RIDER RAILWAY BRIDGE."



Sir,—Having been applied to for a plan and estimate of a railway bridge, upon Mr. Rider's principle, I inclose a tracing of the plan submitted, which I have agreed to execute for the sum of 15,000*l.* The entire length of the bridge would be 800 feet. As the above will demonstrate the great economy of the Rider bridge, you may, perhaps, deem it a matter of interest to your readers; and, if so, as worthy of insertion in your scientific Journal. I am, Sir, your obedient servant,

Bradford, Wilts, Feb. 7. S. Moulton,
Patentee of Rider's Bridge.

[In the bridge, of which the above is a diagram, the peculiarity is said to consist in the introduction and application of the longitudinal strength of iron in such manner that, while it tends to increase its durability, it also presents a structure of greater economy, in proportion to its strength, than any other iron bridge at present in use. The sides of the Rider bridge are each composed of an upper and lower chord, the former heavier and somewhat longer than the latter, in order to give the necessary camber or segment to the bridge, which are formed of two pieces of L iron, and together represent a T. The lower chord is formed of two plain bars of wrought-iron. These upper and lower chords are held together by suspension chords and diagonal ties, but *not riveted* together, where they cross each other. The upper chord forms an arch, and, having to sustain only a compressing strain, is made of cast-iron, with heavy flanges, so arranged as to give it great stiffness; it is longer and larger than the lower chord, which, having to sustain a tension strain, is made of wrought-iron. The diagonal ties, or suspension chords, are made of wrought-iron, and are secured only to the upper and lower chords at regular intervals, running upwards and downwards, diagonally with the chords, and at nearly right angles with each other. The posts are of cast-iron, and are placed at equal distances apart, along the whole length of the chords, to keep the upper and lower chords asunder, and at the same time assist in preserving the truss in line. When these diagonal ties are thus attached, and the chords also kept apart by the iron posts above mentioned, it will be seen that the roadway, whether placed in the centre or at the bottom of the truss, does not rest upon any one part of the bridge, but is suspended to the arch formed by the top chord.

The great strength of the structure is evidently in the arched top chord and suspension or diagonal ties; and, in order to increase it, a wedge, or key, is inserted on each side of the top of the iron posts, under the top chord—by the action of which the upper and lower chords are kept at the greatest possible distance from each other, the full strength of the longitudinal tension of the wrought-iron ties effectually obtained, and the cambering, or arching, of the bridge thus permanently secured. Longitudinal ties, or braces, made of wrought-iron, are fixed under the floor of the bridge, running diagonally from one chord to the other at right angles with each other, brought to great tension, or strain, by a screw-nut at each end, which perfectly prevents any tendency to oscillation. This peculiar application of the longitudinal tension of wrought-iron in the construction of an iron bridge, and the cambering, or arching, as just explained, by means of the wedges, or keys, are deemed entirely original, and, it is expected, will be found to be very valuable discoveries; and another important feature in the Rider bridge is, that the diagonal ties not being fastened together at the parts of intersection, the fulcrumage is removed from the space between the chords to the lower chord, whereby the principles of the arch and suspension are combined in this bridge, and the load distributed over its entire length.

We understand that the Rider bridge has been in use on the Harlem Railway a year and a half, and fully tested by the very able chief engineer of the road, Allen Campbell, Esq., the result of which has induced the company to give further orders; the properties and plan of construction have been examined also by many other scientific and practical engineers, who have bestowed on the inventor the highest encomiums for his skill and ingenuity; and, besides the bridges for the Harlem Railway, orders have been taken from the Erie Railway Company, T. S. Brown, chief engineer; the Louisa Railway, Va., W. A. Kuper, chief engineer; the State of New York, by the Canal Commissioners; and the White's Corners and Buffalo Plank-road Company, near Buffalo, all of which will be seen in use, and may consequently be referred to, as to the great utility of the bridge.

The small diagrams represent the end view of the struts, attached to the cast-iron posts, or stretchers, which give additional strength and security from oscillation, and the manner in which the diagonal braces may be fixed beneath the floor of the bridge.

A well-executed model of the bridge, 4 ft. 6 in. long, and which has borne 1500 lbs. of shot in bags, lies at our office, and may be inspected by parties feeling interested in the subject.]

THE CORNWALL RAILWAYS.—No. IV.

Sir,—Your correspondent, "Another Reader," would appear to be a very humble man—his style is certainly very humble, and he professes to be humble in his opinion of his own knowledge. I have had abundant proof, however, that the professedly humble are seldom actually so, and I have my doubts of this gentleman's sincerity. I would advise him to examine himself with an impartial fidelity, that he may be the better prepared to judge himself, and to estimate his attainments according to their true stature. In my letters I did not represent myself to be an engineer; but I did, and do, feel assured that a man of very slight attainments might have furnished a better line than the Hayle Railway. While "Another Reader" would censure me for my "hasty statements," he is so hasty himself as to run into an untruth. He says, that "I know more than I was willing to admit, and asserts that I knew (which I did not) that the Hayle Railway Company applied to Parliament for the present line, after having obtained an Act for a better one." If this is a fact (which I shall not dispute), it shows in a still stronger light the folly of the committee in their proceeding—if to them attaches the blame; and it also shows the obsequiousness of their engineer. It is rather odd, this "forcing" of an engineer. Most engineers would have evaded this coercion, by a speedy retirement from the office, in preference to taking the fees, and therewith the charge of incompetence, which people are constantly enunciating against the engineer of this line. Retaining the office, however, it would have been well for him to have advertised, at sundry prominent stations on the line, the following, or a similar, disclaimer:—"This is to give notice, that the engineer of the Hayle Railway is not the engineer thereof, but that the committee are the engineers—the committee having forced this bad line on me, R. T.!" This would have detached from Mr. T. a large share of that odium which now rests on him; the public being ignorant of the *forcing* under which he executed the work. I can well imagine him, in a very unhappy state of mind, working away on the three inclines, while remembering his *own* line of 1 in 50. But I suppose that railway work was scarce in those days, and that, therefore, it was better to be a nominal engineer at two guineas a day, than be without a job. I do not wish to detract from Mr. Thomas's merits; he is well known to be a clever man, notwithstanding this matter of the Hayle Railway; a man of strict integrity, and of singular perseverance. He is indebted to himself only for what he knows, being a self-educated man, and men of that class are generally the best. Sir, did I *abuse* Mr. Thomas, or any one else, in my letters? If I did, please show me wherein. "Another Reader" intimates that I did so; but, perhaps, he has mistaken the word. I do not deal in that commodity. With regard to the *Central Railway*, the same writer says, that Col. Landmann and Capt. Woollcombe were the chief engineers; but that the former was never in the county! If this be true, what a farce to have named him as such! But for any good that the engineer of the Cornwall Railway did by his coming down he might as well have remained in London. He, too, is a *nominal* engineer; and he acted the part of one, by riding through the county at about 12 miles an hour in a carriage and four, like a man of quality, stopping at a few places to give audience to his chief surveyors, and then returning with equal speed. This is engineering humbug! I have heard that the committee of the Cornwall Railway are not likely to require his services, when they shall be in a situation to proceed with their works. If that should be true, they will act prudently by engaging the services of one on whose judgment they can with greater confidence depend. I wish to speak of men as *they are*, and not according to any false position to which they may have attained by accident. Mr. Brunel's fame is based on that of his father; but I do not deny that he is really an ingenious man, but not belonging to the first class of engineers. "Another Reader" seems to think that, because I find fault with such a great man, I put myself down for a greater one, which is not the case. He must be aware that it is often more easy to perceive a fault than to correct it; but many of Mr. Brunel's faults are of great magnitude, and which very few engineers would have committed. Look for a moment at the South Devon Railway. What a *mess* he has brought the company into! In their case it would have been best to have "forced" their engineer not to apply the atmospheric apparatus, which has cost the company nearly 400,000*l.*, though not half completed, and now abandoned—so that a very large portion of that sum will be lost by the company. It will be recollected by your readers, that this apparatus was adopted in consequence of Mr. Brunel's strong recommendation. I find that the engineers' charges for that line amount to nearly 400,000*l.* This is paying dearly for an "eminent" engineer. I prophecy that the South Devon Company will not retain him permanently—experience keeps a dear school, in which they have learned a lesson never to be forgotten.

I have a very high opinion indeed of Mr. Locke. He must be ranked, with Mr. Stephenson, amongst the first-class engineers. I have been informed that in no case has his estimates of railway expenditure *been exceeded* by the expense of construction, and that Brunel *never kept within* his estimates. Let this fact have its due weight, in determining comparative merit.—A Reader: *Redruth, Feb.* 1.

RAILWAY ACROSS THE ISTHMUS OF PANAMA.

Sir,—Your exceedingly humorous and poetical correspondent, "Sigma," has indulged in a very witty strain upon my project of a railway across the Isthmus of Panama [see *Mining Journal*, Jan. 20], but whether he has thereby displayed a practical or liberal sense is very much to be questioned. His sweeping condemnation precludes me from entering upon a defence of my project, which I, by-the-bye, still consider as practical as before; but I would recommend "Sigma" to consider what has been done in various branches of engineering; let him remember that even a Sir Humphry Davy ridiculed the first attempts of introducing coal gas for the lighting of towns; or one of the leading journals of the day considering it as safe to travel by a Congreve rocket, as to travel at the rate of 30 miles an hour by railway; or let him remember the still more recent miscalculations of a Lardner, or of the predictions regarding Robert Stephenson's tubular bridge, when that eminent engineer was bold enough to make known his invention. However, enough, if "Sigma" will consider these and many other similar cases, whereof hundreds might be enumerated, where men of high standing and learning have condemned a new thing, only because they were not practical enough to appreciate, or too indolent to investigate it, and if he then has still a mind to throw down the gauntlet, I shall be very glad to test his scientific attainments, as well as his poetical vein.

Perhaps, if I was to tell "Sigma" that it is not unlikely—nay, almost certain—that electricity will supersede steam as a motive power, in spite of all the predictions of our scientific men, such as Liebig, &c., he would likewise overflow with wit and sarcasm; still I will venture this, and can inform him, that not many months will elapse before it will be fully proved beyond all doubt. In reply to "Ferreus," I have to thank him for his good advice; but as a French paper announces that Louis Napoleon receives not less than from 200 to 500 letters every day, it is better not to add to his numerous correspondents; nor can I think that he has the inclination at present to trouble himself with "poetical engineering." I shall leave my plan in the hands of my countrymen, who have sufficient good engineers to decide whether it is practical or not. T. A. E.

London, Feb. 6.

IMPROVEMENTS IN THE STEAM-ENGINE.

Sir,—Judging from the great excitement manifested on account of the gold discovered in California, and the prevalent regrets that the territory is not possessed by England, the conclusion would seem to be, that by many it must be looked upon as a discovery of the first importance to those, at least, to whom the territory belongs, if not to the world at large. Yet, Sir, I am presumptive enough to assert, that the invention I have so long and so painfully invited the public to accept, will hereafter be admitted as of infinitely more value to mankind, and especially so to England, than all the gold that ever California will produce. But, perhaps, had the invention alluded to been like the gold of California, of foreign origin, it too would have long, ere this, have found favour with the English public. Place side by side the advantages conferred upon mankind by the mighty productive agency of the steam-engine, and that of the gold of California, and the latter displays its insignificance.

Yet, as though men had not experienced the inestimable value of the steam-engine, in vain do I call their attention to means by which our sailing vessels may be supplied with auxiliary steam power, without materially diminishing the tonnage available for merchandise—in vain do I endeavour to call attention to the means whereby our war steamers may be rendered four-fold more effective—in vain do I offer the means of diminishing by two-thirds the weight of coals and machinery at present used in our merchant steam-vessels—in vain do I offer means whereby our numerous stationary engines would do as much work with less than half the fuel they consume at present—in vain do I show how the present extravagant locomotive may be supplanted by engines possessing all the economy of the Cornish engine—in vain do I show how the advantageous application of the steam-engine may be almost indefinitely extended—in vain do I show how those shocking accidents which result from steam-boiler explosions may be prevented—in vain do I show how the injurious consequences, arising from deposit in the boilers, may be completely avoided. I say, that hitherto I have offered all these advantages to the English people, without exciting a spirit of inquiry; yet I know they are such realities, as by contrast will exhibit the production of Californian gold as at once ephemeral and insignificant. T. Craddock.

Birmingham, Feb. 7.

IRON MANUFACTURE—Mr. BOOKER'S SPEECH AT SWANSEA.

Sir,—It was with some surprise that I perused an extract from this speech, in your last week's Number, in which Mr. Booker saddles Mr. Anthony Hill with the merit of discovering that cinders—*i. e.*, vitreous silicates of iron—could be resmelted and reconverted in the blast-furnace. The original blast-furnaces of Dean Forest were, for the most part, placed upon the old sites of extensive bloomary-forges, in order that they might command as cheaply as possible a supply of the silicate of iron, called bloomary cinder. In 1635, these blast-furnaces were deriving a large proportion of their supplies from the bloomary cinders; and this continued, subsequently, for more than 100 years. Towards the end of the last, and during the commencement of the present century, my late father again directed the attention of manufacturing ironmasters to the use of iron slags, and suggested various processes for the improvement of cinder-iron. By degrees the use of cinders became universal, and my father's suggestions were, as is usual in such cases, attended to and carried out, but never, of course, acknowledged.

With the knowledge of these facts before us, and from the perusal of some curious correspondence upon the subject of cinder and cinder-iron, between my late father and some of the leading ironmasters of South Wales, I feel much amused by the announcement of Mr. Hill's discovery at this late hour. In addition to the cinder discovery, Mr. Hill likewise took out a patent for the use of lime in the puddling-furnace, the idea being possibly suggested to him by the perusal of my father's experiments upon the decarbonating and toughening action of lime upon bar-iron. These experiments were made in 1797. Lastly, Mr. Hill possesses the great merit of having duly appreciated my father's patent process for improving at once the yield of the puddling furnace and the quality of the bar-iron produced, by the introduction of oxides of iron along with the charge of metal. This most valuable discovery of my father's was, some time ago, carried into effect, on a large scale, at Mr. Hill's works, subject to certain trivial alterations, which, I suppose, were sufficient under the patent laws to exonerate Mr. Hill from payment of the *enormous* impost of 6d. per ton on bars, which my father wished to exact for the use of his patent at Plymouth Iron-Works. When the *debt of gratitude* mentioned by Mr. Booker is paid to Mr. Hill, I trust I may be able to add my mite in grateful acknowledgment of the high honour conferred upon my father's original ideas and discoveries by the notice which Mr. Anthony Hill has condescended to bestow upon them.

About 50 years ago, my father began to enlighten the ironmakers of this country by the publication of his original ideas and practical observations upon the subject of iron and steel. The grossest ignorance at that time existed upon this important manufacture, in proof of which I need only instance the steel process of Clouet, which, with all its glaring absurdities, was yet deemed of high value by the scientific Frenchmen of that day. Gradually, my father's ideas were adopted, and his advice and opinions sought upon all sides. Most of the improvements in iron-making of the present century may be directly traced to his suggestions, or as derived from his published opinions. The present Russian autocrat appreciated my father's knowledge and experience sufficiently to induce him to send to the latter a special mission, seeking his advice and aid in carrying out the manufacture of iron in Russia. When the debt of public gratitude shall have been *paid* to Mr. Hill, I may, I trust, live to see the much larger debt of public gratitude due to the late David Mushet *acknowledged*.

Mr. Booker seems to entertain very correct views of the rational improvements of the talented Mr. Yates. The large piles of masonry called blast-furnaces, in Wales, and elsewhere, seem calculated and constructed on purpose to consume power and fuel, not to make iron; yet such are the natural advantages of the South Wales mineral district, that it has hitherto been a matter of indifference whether each ton of pig-iron wastes 1, 2, or 3 tons of coal during its smelting. Mr. Yates is, in practice, about 100 years in advance of the present generation of smelters. R. Mushet.

Coleford, Feb. 5.

ON THE USE OF PEAT FUEL IN MANUFACTURING IRON.

Sir,—In reply to the question of your correspondent, "V. P.," in the *Mining Journal* of the 3d inst., it will require about 25 tons of dried peat to refine, puddle, and convert 14¼ tons of pigs into 10 tons of merchant bar-iron, each operation being conducted in reverberatory furnaces, using raw peat. The quantity of peat-charcoal required to smelt ore yielding 50 per cent. would vary with the quality of the ore, peat, and heat at which the blast was used; if the ore is easy to reduce, peat of average quality, using a soft blast at 600° Fahr., 26 cwts. of peat-charcoal is ample to produce a ton of good pig-iron from 2 tons of ore. Puddling-furnaces using peat are fired differently from those using coal; from the intensity and regularity of the heat the charges are brought out in a short time, and the iron of very superior quality; that made at the establishments at which I have been was chiefly rolled direct into sheets, hoops, and nail-rods.

Feb. 6. E. K.

BOVEY LIGNITE.

Sir,—The result of Mr. Rudall's experiments only further evidences the impracticability of profitably coking the Bovey lignite. Knowing that previous attempts to carbonize it in quantity had signally failed, and having myself passed an average sample of it through a retort (not, however, entering into any subsequent analysis), I found the residuum to be both friable and, commercially speaking, worthless. Mr. Rudall (to whom the mining public, as well as myself, must feel indebted for his publication), after enumerating the extraneous matters, leads to the conclusion that above 50 per cent. of carbon remains, which is very possible; but he does not mean by the Bovey Company's process by distillation, or otherwise, to say there is such a per centage of "*pure charcoal?*" Exon.

Feb. 6.

AGRICULTURAL CHEMISTRY.

Sir,—I have communicated to you my intention entirely to discontinue all allusion to this question in future, because it seems, when duly considered, extended beyond a specific limit, to be foreign to the main object of the *Mining Journal*. I was led incidentally to the subject in the first instance by your own paragraph, descriptive of Dr. Ryan's lecture on the subject at the Polytechnic Institution. I make these remarks by way of apology for entirely declining, as far as I am concerned, to prolong the contest by an attitude of defence or entering upon explanatory evidence.

Portland-place, Hull, Feb. 5. J. Murray.

EXPLOSIONS IN COAL MINES.

SIR,—It is heart-sickening and a sorrowful thing to reflect on the apathy of Government, and of the country, on the subject of colliery explosions, and the extensive destruction of human life. It would seem as if the poor collier were the very outcast of his species—the pariah of a proscribed caste—with less sympathy expended on him than on the convict, whose criminality has evoked the vengeance of his country for her outraged laws. No sooner is the sacred sympathies of the heart set at nought in the person of her Grace of Sutherland, than the indignant throe of "red resentment" very properly quickens the pulse, and dooms the obnoxious deed to honest execration and repudiation. But, Sir, here are thousands doomed to death, and tens of thousands to misery—sons of toil and denizens of danger—all, all passed *sub silentio!* Nearly 100 immortal beings—children of the common parent of mankind—"the BEAUTIFUL, the GOOD," are consigned, by one fell swoop, to a common grave, and what a sequel! A shudder, or a sigh (*exeunt omnes*), the curtain drops, and all is over. This is an emphatic and faithful, though a melancholy, picture of this "strange eventful story." As to "Government commissions," when the deed is done:—it is a solemn mockery, and an outrage on our common humanity, only exceeded by the repulsive finale, the invariable verdict of the coroner's jury—"ACCIDENTAL DEATH!" What have "Government Commissioners" done? They seem to be selected for their especial *incapacity* for the very inquiry assigned to them!

You know, Sir, I take a special and deep interest in this question. I have contended with my feelings, and endeavoured to repress them, but they will come to the surface, though I often say to that "meddlesome, officious" thing, called *Thought*—"Down, busy devil, down!" My heart bleeds—inly bleeds—at these scenes of misery and suffering. (Pardon me, my honest though artless ebullition, good Mr. Mushet!)

A *safety-lamp* is not the question; the great and paramount questions are a safe and effective mode of working the coal-field, and of ventilating the coal mine. I have introduced these remarks as called for by a crude and ill-digested recommendation of a very foolish toy, called a "safety-lamp," of which a figure is given in the *Illustrated News* of the 3d inst. Nothing can be more absurd than an unprotected *glass* cylinder for the purposes of mining, liable every moment to be shattered into a thousand pieces.—J. MURRAY: *Portland-place, Hull, Feb.* 9.

VENTILATION OF COAL MINES.

SIR,—I am much surprised that any one writing himself "Mine Agent," should have proposed such a puerile scheme of ventilation as appears in your correspondence of last week. The whole plan betrays throughout a sad lack of practical acquaintance with the subject treated of, and, instead of being *effectual* for the purpose required, would not be sufficient, in many instances, to air a single drift 50 yards from the shaft side. If this, indeed, be the result of "well studying the several systems of ventilation now in use," it only adds another melancholy proof of the uselessness, and even mischief, resulting from a theoretical acquaintance with this momentous subject, when unaccompanied with that practical experience so necessary to restrain and direct the information thus obtained. It is, I believe, generally admitted, that it will be always a matter of great difficulty to fix upon any one system of ventilation, which, under all circumstances, and in every mine, shall be rigidly and undeviatingly adhered to; but possibly a few general rules may be agreed upon, which, in most cases, it will be prudent to attend to. With your permission I will, with much deference, submit what I conceive to be the most important of these general rules, leaving the practical application of them to the consideration of the viewer and his deputy, on whose judgment, after all that can be suggested, much of the miner's safety must ever depend. First, then, I would submit that two distinct shafts should always be chosen for ventilation, in preference to timber divisions in the same shaft, for that purpose, as it is well known in practice how difficult it is to make and keep these barriers perfectly air-tight, and, in case of explosion, the danger is greatly increased from rupture of the main air-course. Secondly, where practicable, the upcast shaft should be placed at some distance on the rise of the mine from the downcast. Thirdly, the collective area of the main air-passages should always be equivalent to the area of the upcast shaft. Fourthly, the air should be directed to course round and through the old workings as far as possible, and the air thus employed should never again be introduced into the current workings. Fifthly, a properly-constructed furnace should, at the very commencement of the workings, be placed at the bottom of the upcast shaft with a separate drift, to convey into the shaft, at a higher level, all air loaded to the explosive point. Sixthly, a self-registering anemometer, on the principle of Biram's, should be constantly kept in the principal air-course, and daily noted and reported upon to the resident viewer, who should also carefully mark sudden falls in the barometer, and tempestuous winds, as requiring extra vigilance and care. Were these few simple rules generally acted upon, with others which might be added, but which will readily suggest themselves to the experienced viewer, I dare confidently predict, that they would serve materially to lessen the fearful catalogue of accidents from explosions in mines, and thus assist in promoting the laudable object you have so much at heart—an increase of comfort and protection to the poor working miner.

Kilburn, Feb. 6. THE BLACK DIAMOND.

CAMERON'S STEAM COAL COMPANY.

SIR,—In the *Mining Journal* of the 27th inst., there appears a letter, signed "Verax," relative to the state of Cameron's Coalbrook Steam Coal Company, which, amongst other matters, contains the following statement:—"If they had any *suitable* mining engineer, he would appear to have been *disqualified* for properly carrying out the works, for they do not seem to have emerged from the condition of the most common-place colliery, till at length want of quantity, and accumulated loss by extravagant management, have reduced matters to a despairing state." Without waiting to inquire how a *suitable* mining engineer could be *disqualified* for properly carrying out the works, I wish to remove the blame thus sought to be laid upon the company's engineer on nothing but the gratuitous assumptions of "Verax," for his statements prove him to be ignorant of the particulars of the case on which he is writing in the above paragraph. Is "Verax" aware that, according to the statement of the company's solicitor at one of the general meetings, it was stated to be the recommendation of the company's resident engineer to extend the works, by an expenditure of about 30,000*l.*? That such recommendation was made to the directors on the earliest occasion after the present engineer was engaged, is far from improbable; for, with a board consisting of (as "Verax" states) persons utterly ignorant of the subject they were to govern, the propriety of adopting such recommendation might not appear until it was afterwards forced upon them by circumstances; or the then state of the money market might, in their opinion, render it desirable not to alarm the shareholders by asking for so large a sum; this, I have every reason to believe, is the true state of the case. As to the extravagant management, there is nothing to show that the company's present engineer is in any way chargeable with it. The funds are shown principally to have been expended in a manner totally independent of the working of the colliery, and, although a very costly mode of hauling was in operation at the time the present engineer was engaged, it is very probable that he would recommend its discontinuance at the same time that he recommended the extension of the works; but, if so, the fear of reducing the marketable value of the shares, and, consequently, the chances of raising the 30,000*l.* by calls, might prevent the directors adopting the latter of these recommendations, until they could at the same time adopt the former. I have every reason to believe that the shareholders' committee of inquiry are perfectly satisfied both as to the integrity and ability of the company's engineer; and, I have no doubt, that if any suggestions which he had made had been acted upon, the company would have found a very speedy benefit from their adoption.

Durham, Feb. 5. Z.

COPPER SMELTING.

SIR,—I am glad so able a practical authority as Mr. Merry has pronounced his accordance with Mr. Mitchell's view of this subject. When I addressed you on it some weeks since, I was then ignorant of the history of the late smelting company, as detailed in Mr. Budd's subsequent letters; but it appears their fate has been strictly a proof in point of what I advanced, and that by setting out with the notion of benefitting the miners, they succeeded in ruining themselves. It is, therefore, plain that a new company can effect no permanent benefit to any party by following the same course. I think it is also clear that with the revolution which is now taking place in the sources of supply, it is something much more than uncertain whether the old companies will occupy the same ground they have hitherto done; and as to the British miners, their prospects seem of the worst kind, without some new feature of advantage. I know nothing of the smelting process adverted to by Mr. Mitchell, but the character of his communications to your Journal is a very high warrant in favour of any operation he recommends. I cannot but agree much more with Mr. Mitchell than with Mr. Birkmyre. For instance, the intense and destructive affinity of iron for sulphur presents to the mind of those practically acquainted with it, an insuperable obstacle to the smelting of iron pyrites; and if such a desulphurization could be effected, as to render the smelting practicable, at what cost could it be so prepared? For precipitating copper I believe it is necessary the iron should be in the commodious form of sheets; these also must be had where they can be got cheapest—*query*, will this be from pyritical ore? In the face of the changes which are *only beginning*, I do not see what is to save the Cornish copper miners but a new source of economy; or what a new smelting company can avail them, unless possessed of such a source. By appropriating such a process as Mr. Mitchell describes, such a company, instead of having to force its way against competition to a precarious existence, would start with the fresh vigour of youth in the midst of a fading order of things; and, with such an element of vitality, might look forward in just hope to a strong and permanent maturity.—DAVID MUSHET: *Feb.* 5.

LIVE TOAD IN GRANITE—MR. MUSHET.

SIR,—I confess that Mr. Mushet is more easily satisfied with *evidence* (*f*) than I gave him credit for, and though the enunciated live toad in granite has been laughed at by geologists, it appears that your correspondent was perfectly sincere. I am fully alive to well authenticated evidence, and ready to welcome it *con amore;* but I confess I have no community of feeling with vague and indeterminate assumptions in hasty generalisations; all this may be readily believed, seeing I have no particular predilection for much of the romance of modern geology. In a former communication I distinctly stated that I investigated the asserted existence of fossil forms in the granite of Guernsey, said to have been discovered in Lancresse, but my personal investigations on the spot were fruitless, as also my interrogations with the proprietors of the quarries and the quarrymen. Moreover, Mr. Lucas, of St. Peter's Port, who has minutely investigated the geology of Guernsey, and is most intimately acquainted with all that has been done and developed in the geology of the island, for at least a period of 30 years, was perfectly unconscious of any such occurrence. Can it be wondered at, that under these circumstances I should hesitate to accept a vague assertion for an established truth? "Truth is an immutable and immortal thing," and is not to be so lightly esteemed. I frankly plead guilty to the charge, by implication, of rude and unpolished diction in my hurried communication, and I also freely confess I have not availed myself of the classic idiom—"the well-turned periods, and well-tuned words" of Mr. Mushet's graceful style; but, to tell you the truth, at this my confessional, my lucubrations are almost always *per saltum*, and never read again; you must, therefore, please, Sir, allow me to tell my artless tale in my own way—the language of pusillanimous Pilate being especially apposite in my individual case—"What I have written I have written."

Portland-place, Hull, Feb. 5. J. MURRAY.

EASTERN ARCHIPELAGO COMPANY.

In the *Mining Journal* of the 4th March last, we noticed the formation of a company under the above title, and for which a charter of incorporation had been granted by Her Majesty the Queen, enabling them to acquire, hold, cultivate, plant, let, sell, mortgage, or otherwise deal with land, &c., and of the produce of the lands of Borneo, Labuan, &c.; for working mines of metallic minerals, coals, &c.; for trading with any of the inhabitants, or authorities; for exporting produce, importing necessary articles and materials, and for purchasing, or hiring, British or other ships. On two or three subsequent occasions we alluded to the progress being made by the company, but for the last seven or eight months little has been done in furtherance of their views, owing, most probably, to the same causes which have operated so injuriously to the interests of all trading communicaties—the unsettled state of continental Europe, and the consequent depression of the money market. As the year 1849, however, opens with much better prospects for all branches of commerce, the executive of the company are now arranging for the immediate commencement of business, and reaping some of the advantages granted them by their charter, and which the islands in the Pacific Ocean so temptingly offer. Labuan having been formally taken possession of by the Crown of Great Britain, and by a treaty with the Sultan of Borneo, many advantages are permanently secured to this country. Being now subject to British dominion, it forms an essential link on the chain of our eastern settlements from Penang, Malacca, and Singapore, to Hong Kong; and its proximity to Manilla, Siam, Cochin-China, Hainan, Java, Sumatra, Celebes, &c., renders the discovery of an abundant supply of excellent coal in Labuan, and on the mainland of Borneo, in the immediate vicinity of Labuan, of great importance to steam navigation in the eastern seas.

An agreement, concluded with the Crown for the lease of the coal under 500 acres of land at Labuan, and a grant of the coal on the mainland of Borneo, extending through a district of about 150 miles, from the Sultan of Borneo, have been made over to this company for 20 years. The working of this coal is the important object contemplated in the first and immediate operations of the company, and its excellent quality has been shown by the concurrent testimony of the Calcutta Coal Committee, Sir Henry de la Beche, Capt. Keppel, Capt. Wallage, and others, who have submitted the coal to the most careful examination, as well as of the several commanders who have tested the quality in their steam-ships.

The Peninsular and Oriental Company disburses more than 130,000*l.* annually for coal for their steam-ships, 90,000*l.* of which is for that consumed east of the Cape of Good Hope, and the whole is now chiefly obtained from England at a cost of 33s. per ton; thus the expenditure of this company, the Government vessels, and those of the East India Company can be greatly reduced, and, at the same time, leave a large amount of profit to the Eastern Archipelago Company, as the Government mineral surveyor has estimated the cost on board ship in the Borneo River at less than 3s. 6d. per ton; and it will be to this important, and doubtless profitable, branch of business, that the energies of the company will be in the first instance directed, as forming the elements of an early and sure return for their investment, although the other advantages within their reach are hardly less deserving consideration. The valuable agricultural, as well as mineral, productions of this territory, possessing as it does a climate and soil admirably adapted for the culture of cotton, tobacco, sugar, coffee, rice, nutmegs, pepper, &c., and its favoured geographical position for extensive and lucrative commerce, are of the greatest importance, and form a source of wealth, which may be effectually developed in a future stage of the proceedings of the company.

In an excellent and recent work on Borneo, by Mr. Low, formerly private secretary to Sir James Brooke, and now colonial secretary of Labuan, he makes the following remarks on the mineral produce of Borneo:—"Next in abundance to the coal, as far as is yet known, is the antimony ore. Iron, in various forms, is found in abundance over the whole island. Tin has been recently discovered in the alluvial soil in the country of the Suntah Dyaks, on the eastern confines of the Sarawak territory. Nickel is found over the whole territory of Sarawak, in the tin and gold districts. Quicksilver is known to exist in several parts of the island; but has not yet been obtained in sufficient quantities to render it an article of exportation. Of the precious metals, gold is abundant. The diamonds of Borneo have long been celebrated as equal to any from India, or Brazil, in abundance and beauty."

From a calculation recently made, it appeared that the number of Chinese employed in the gold mines at Montrada, and other places on the western side of Borneo, are not less than 32,000 working men, producing a sum equal to 1,000,000*l.* sterling annually, and it is believed that, one year with another, 500 Chinese return in their junks to their native country with a competency, none returning with less than $2000. All the calculations are within the mark, and give, it is supposed, one-half less than is absolutely remitted to China alone from the Bornean mines. The capital of the company is 200,000*l.*, in 2000 shares of 100*l.* each, with power to increase the same to 400,000*l.*, and, with the consent of the Board of Trade, to any further amount; a deposit of 5*l.* per share is payable on allotment, and, during 1849, 10*l.*, which will be the extent of the calls, unless sanctioned by a meeting of shareholders.

CEMENTS—AMERICAN, CHINESE, AND DIAMOND CEMENTS.—Soak isinglass in water until it is soft, then dissolve it in the smallest possible quantity of proof-spirit, with the aid of a gentle heat. In 2 ozs. of this dissolve 10 grains of ammoniacum, and while still liquid, add a solution of ½ drachm of mastich in 3 drachms of rectified spirit, stir them well together, and put the mixture into small bottles, which are to be kept covered. This cement, when used, is to be liquified by putting the bottle into hot water. The quality of the cement improves with the application of heat, so that the last portion of a bottle will often be found to be better than the first. This cement resists the action of moisture. It is used by the Armenian jewellers for fixing ornamental stones to jewellery, &c.

TRIAL OF THE NEW STEAM-CARRIAGE ON THE EASTERN COUNTIES.—On Monday, an experimental trip was made on the Eastern Counties with this new species of railway steam-carriage, intended chiefly to work the branch traffic at a more moderate cost, by means of lighter trains, than the present system of heavy locomotive engines—the substitution being that of a light passenger engine of about 12 tons for one of between 40 and 50. Some of the directors, and other gentlemen connected with the line, were in the train during the progress of the experiment, which worked with satisfaction, until in the course of a trial at express speed, the engine, as it is technically termed, "broke down," from an over straining, it was said, of the delicate machinery.

DAMP AND GASEOUS EXHALATIONS.
SANATARY MEASURES.

All MEMBERS of BOARDS OF HEALTH are especially DIRECTED to the most EFFECTIVE MEANS which they can ADOPT to PREVENT the injurious and often FATAL EFFECTS upon the HEALTH of the COMMUNITY, arising from exhalations that are produced from moisture, decayed animal matter (as in grave-yards), stagnant water, and collections of fœtid refuse, tending to produce a miasmatic state of atmosphere. In situations so effected, the impervious quality of the ASPHALTE of SEYSSEL renders it the most perfect PAVEMENT or COVERING that can be relied upon for hermetically closing, and thereby preventing the rising of moisture and escape of noxious vapours. The present extensive application of this material for covering roofs, terraces, and arches, for preventing the percolation of wet, is strong evidence of its effectiveness for the above purposes, which is further confirmed by the following extract from the Report of the Commissioners on the Fine Arts:—

"In 1839, I superintended the construction of a house of three stories on the Lac d'Enghein. The foundation of the building is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and interwal walls was covered at the level of the internal ground floor with a layer of SEYSSEL ASPHALTE,* less than half an inch thick, over which coarse sand was spread.

Since the above date, no trace of damp has shown itself round the walls of the lower story, which are for the most part painted in oil, of a grey stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted. Yet the pavement of the floor, resting on the soil itself, is only about 2½ in. above the external surface of the soil, and only 19½ in., at the utmost, above that of the sheet of water.

The layer of Asphalte having been broken and removed, for the purpose of inserting the sills of two doors, spots indicating the presence of damp have been since remarked at the base of the door-posts." I. FARRELL, Secretary.

Seyssel Asphalte Company, Stangate, London.

* This method has been adopted at the new Houses of Parliament.

CURE OF STAMMERING.—Mr. HUNT begs to announce, that he has returned to his London residence, No. 224, REGENT-STREET, for the season.—A PROSPECTUS, containing TESTIMONIALS, &c., of CURES effected at different periods during the last 22 years, will be sent, on application as above, to any part of the kingdom, free of expense.

Mr. Hunt attends pupils at Swanage, Dorset, during the months of July, August, and September.—224, Regent-street, Jan. 30, 1849.

ASTHMA, COUGHS, AND COLDS.—Upwards of 50 testimonials have just been received of the efficacy of Dr. LOCOCK'S PULMONIC WAFERS. The following is from Mr. James Cullen, Enniscorthy, county Wexford, Ireland:—"Dec. 27, 1848.—Gentlemen: I would feel obliged if you would send a box of Dr. Locock's Wafers, price 2s. 9d., to me. I received a box some time since, and they proved a great relief to a person who was suffering under asthma for a very considerable period of her life. In fact, they were such a relief, that she expects to be entirely cured by taking the wafers for a short time longer. I remain, yours, &c., JAMES CULLEN."—Dr. Locock's Wafers give instant relief, and a rapid cure of asthma, coughs, and all disorders of the breath and lungs. To singers and public speakers they are invaluable for strengthening and clearing the voice; they have a most pleasant taste.—Price 1s. 1½d., 2s. 9d., and 11s. per box.

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Simpkin and Co., Paternoster-row; Hatchards, 187, Piccadilly; Tegg, 73, Cheapside; and sold by all booksellers.

ON NERVOUS DEBILITY AND GENERATIVE DISEASES.

Just published, the thirty-ninth thousand, an improved edition, revised and corrected, 120 pages, price 2s., in a sealed envelope, or forwarded, post-paid, by the Author, to any address, secure from observation, for 2s. 6d., in postage stamps, illustrated with numerous anatomical coloured engravings, &c.

MANHOOD: the CAUSES of its PREMATURE DECLINE, with plain directions for its perfect restoration. A Medical Essay on those diseases of the Generative Organs, emanating from solitary and sedentary habits, indiscriminate excesses, the effects of climate, and infection, &c., addressed to the sufferer in youth, manhood, and old age; with practical remarks on marriage, the treatment and cure of nervous and mental debility, impotency, syphilis, and other urino-genital diseases, by which even the most shattered constitution may be restored, and reach the full period of life allotted to man. The whole illustrated with numerous anatomical engravings on steel, in colour, explaining the various functions, secretions, and structures of the reproductive organs in health and disease; with instructions for private correspondence, cases, &c.—By J. L. CURTIS, consulting surgeon, 7, Frith-street, Soho-sq., London.

REVIEWS OF THE WORK.

We feel no hesitation in saying, that there is no member of society by whom the book will not be found useful—whether such person hold the relation of a parent, preceptor, or a clergyman.—*Sun*, Evening Paper.

J. L. Curtis, *On Manhood, and the Causes of its Premature Decline; with Plain Directions for its Perfect Restoration.*—[Strange, Paternoster-row.]—This is a book replete with valuable advice and information. It developes the fearful shoals on which a large proportion of human happiness is wrecked, and furnishes a chart by which they may be avoided and escaped. Fortunate for a country would it be, did its youth put into practice the philanthropic and scientific maxims here laid down. One cause of matrimonial misery might then be banished from our land, and the race of the enervate be succeeded by a renewal of the hardy vigorous spirits of the olden time.—*United Kingdom Magazine.*

Manhood: a medical work.—To the gay and thoughtless we trust this little work will serve as a beacon to warn them of the danger attendant upon the too rash indulgence of their passions—whilst to some it may serve as a monitor in the hour of temptation, and to the afflicted as a sure guide to health.—*Chronicle.*

Manhood: by J. L. Curtis and Co.—Their long experience and reputation in the treatment of these painful diseases is the patient's guarantee, and well deserves for the work its immense circulation.—*Era.*

Published by the author, and may be had at his residence; sold also by Strange, 21, Paternoster-row, London; Heywood, Oldham-street, Manchester; Philip, South Castle-street, Liverpool; Robinson, 11, Greenside-street, Edinburgh; Campbell, chemist, 146, Argyle-street, Glasgow; Berry and Co., Capel-street, Dublin; and by all booksellers.

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PART THE FIRST treats of the anatomy and physiology of the reproductive organs, and is illustrated by six coloured engravings.—PART THE SECOND treats of the consequences resulting from excessive indulgence, and their lamentable effects on the system, producing mental and bodily weakness, nervous excitement, and generative incapacity; it is illustrated by three explanatory engravings.—PART THE THIRD treats of the diseases resulting from infection, either in the primary or secondary form, and contains explicit directions for their treatment. This section is illustrated by 17 coloured engravings.—PART THE FOURTH contains a prescription for the prevention of disease by a simple application, by which the danger of infection is obviated. This important part of the work should not escape the reader's notice.—PART THE FIFTH is devoted to the consideration of marriage and its duties. The causes of unproductive unions are also considered, and the whole subject critically and philosophically inquired into.

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N.B.—In local towns and extensive manufactories, works, &c., where 40 or more club together, the ballot will take place amongst themselves, and the successful candidates will be required to place themselves in immediate communication with the secretary, in London, in order to obtain the requisite certificate, &c.

The most strenuous exertions will be made by the directors to despatch the first ship early in the ensuing month. Emigrants desirous of returning to the mother country will be afforded every assistance to effect their wishes.

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For plans of the vessels, rates of passage-money, and to secure passages, and ship cargo apply at the company's offices, No. 122, Leadenhall-street, London; and 57, High-street Southampton.

NOTICE TO SHIPPERS OF GOODS AND PARCELS, per PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY'S STEAMERS, to INDIA and CHINA.—GOODS and PARCELS sent direct to the company's parcel office, on or before 6 P.M., on the 17th of each month, are forwarded at less cost to shippers than when sent through any intermediate channel. Cases must not exceed 180 lbs. weight each, for Aden, Ceylon, Madras, Calcutta, and China; and 40 lbs. each case for Bombay. No package for India or China can, under any circumstances, be shipped at Southampton, unless it be cleared through the Custom-house, and placed alongside the steamer by noon on the 19th of each month.

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ECONOMICAL STEAM-ENGINE—Surpassing the Cornish.

CRADDOCK'S PATENT DOUBLE CYLINDER HIGH-PRESSURE EXPANSIVE AND CONDENSING ENGINE,

Alike ADAPTED FOR MARINE, LOCOMOTIVE, AND STATIONARY PURPOSES.

BOILER.—Tubular, free from deposit, and perfectly safe from explosion.
ENGINE.—Not half the weight or bulk of ordinary engines.
FUEL.—Not half that required by the best engines of the common kind.
WATER.—Under one gallon per horse-power per day of 10 hours, for all purposes, with air as the medium of condensation.

These engines are erected at a comparatively trifling expense, and are easily worked.

FOR SALE.

TWO 40-horse power ENGINES, suited to condense either by air or water.			
ONE 25-horse power	ditto	ditto	ditto
TWO 20-horse power	ditto	ditto	ditto
ONE 14-horse power	ditto	ditto	ditto

A PAIR of OSCILLATING MARINE ENGINES, of 10-horse power.

PRICE.—£20 per horse-power.

These engines are quite new, with boiler, condenser, and regulating damper—all got up in the best and simplest manner. They are much simpler, and almost beyond comparison more compact than the Cornish engine, also more safe and economical than even those engines, yet the price of the Cornish is nearly double that at which these are offered.—Parties wanting engines will find in the above good bargains.

Apply to Thomas Craddock and Co., engineers, 36 and 38, Broad-street, Birmingham, where engines on the above principle may be seen at work.

Also ON SALE, THREE 4-horse HIGH-PRESSURE ENGINES, simply arranged, and well got up.—Price £12 per horse-power.

BRISTOL AND EXETER RAILWAY COMPANY.—Notice is hereby given, that the next HALF-YEARLY GENERAL MEETING of the proprietors of this company will be HELD, in pursuance of the Act of Parliament, at the White Lion Hotel, in the city of Bristol, on Thursday, the 1st of March, at Twelve o'clock, for the election of four directors, in the room of those who retire, and for other affairs.—The chair will be taken at One o'clock precisely.

JAMES W. BULLER, Chairman.

The retiring directors may be re-elected.

The transfer-books will be closed on Monday, the 19th February, and not be reopened until after the said general meeting, on the 1st of March.

The dividend and interest for the half-year ending on the 31st of December, 1848, will be payable to those shareholders who stand registered when the transfer-books are closed on the said 19th of February.

Shares in arrear do not entitle the holder to vote, nor are proxies available, unless lodged with the secretary five days, at the least, before the meeting.

By order of the board of directors,

Bristol Office, 30, Broad-street, Jan. 26, 1849. J. B. BADHAM, Secretary.

RIDER'S RAILWAY BRIDGE.—TO RAILWAY COMPANIES.—This BRIDGE has now been for 18 months in DAILY USE (having a double track) on the HARLEM RAILWAY, in the State of New York, United States. The Erie Railway and the Newhaven Railway Companies have likewise adopted it.

Several other bridges, for ordinary purposes, are also being constructed.

The advantages of this over all other iron bridges hitherto invented, consist in the small amount of iron required, compared with the strength obtained, in avoiding the use of any surplus weight of material, in the consequent economy of its construction, and also from its lightness, easy mode of putting together, and facility of transport, in its peculiar adaptation for foreign use.

As regards economy, it can be erected at a cost not exceeding that of a WOODEN BRIDGE, of equal capability.

Applications to be made to Mr. Moulton, the patentee, Bradford, Wilts; or to Mr. Howard Jacobson, Suffolk-lane, Thames-street, London.

SUBMARINE TELEGRAPH.—The GENERAL TELEGRAPH COMPANY INVITE all PARTIES INTERESTED in this important subject to INSPECT their SUBMARINE TELEGRAPHIC ROPE—the most perfect of the kind yet submitted to the public.

Offices, 9, John-street, Adelphi, London.

CWMBRAIN PATENT IRON REFINERY.—The PROPRIETORS of IRON FORGES and MILLS are respectfully INVITED to MAKE TRIAL of Mr. BLEWITT'S REFINED IRON, or METAL, PREPARED by a NEW PATENT PROCESS,

whereby the IRON is completely FREED from the IMPURITIES CONTRACTED in the BLAST-FURNACE, and, by judicious mixtures, rendered applicable to every kind of manufacture. Heretofore, the metal usually sold in the market has been produced from he worst pigs, scraps, and refuse of some particular blast-furnace, or set of furnaces, without any mixture, or any regard to quality, or the purpose for which it might be required. The PATENT METAL is PREPARED ON SYSTEM, and TO ORDER, for any of the following purposes:—

1. For BOILER and TANK-PLATES.
2. For TIN-PLATES, commonly called COKE-PLATES.
3. For STRONG CABLE BOLTS, RIVET, and ANGLE IRON.
4. This COMPOUND PUDDLED, beat under the hammer into a bloom, reheated, and rolled into a 6 or 6½-inch bar, makes TOPS and BOTTOMS for FLANCH and OTHER RAILS, of very superior quality, and attended with less waste than any other kind of iron used for that purpose. It is also well adapted for nail-rods, horse-shoes, and for other ordinary uses of the blacksmith.

The PATENT METAL is marked with a squirrel, and the initials "R. J. B.," and is to be had only at the "Cwmbrain Iron-Works," near Newport, Monmouthshire

DUISBURG IRON-WORKS.—Company's Offices, No. 28, Moorgate-street, City.—Extensive MINES OF IRON ORE are the absolute property of this company; they are situate in the middle of the rich COAL BASIN of the RUHR, close to the railways to Berlin, Cologne, Elberfeld, and other principal towns of Germany. An almost inexhaustible and cheap supply to blast-furnaces, which are to be constructed next spring, in the vicinity of Duisburg, near the Rhine, will be obtained from these mines, with a view of meeting a portion of the large demand for "pig-iron" for the German markets.

The company being managed as a *Société en Commandite*, in Prussia, and under the "Cost-book Principle" in England, the responsibility of the shareholders is thereby legally limited to their shares.

Further information may be obtained, and specimens inspected, at the above offices.

ANDREW SMITH'S PATENT WIRE ROPE—NOTICE AND CAUTION.—The UNDERSIGNED begs to inform the Public, and especially the MINING, RAILWAY, and SHIPPING INTEREST, that he has become SOLE LICENSEE of Mr. ANDREW SMITH, for the MANUFACTURE and SALE of his PATENT WIRE ROPE; and that he has taken to the premises, late Mr. Smith's, at Millwall, Poplar, where orders will be executed with the utmost attention and dispatch, and on reasonable terms. WILLIAM WILKINS.

Patent Wire Rope Works, Millwall, Poplar, Nov., 1848.

CAUTION.—Persons PURCHASING, or USING, the PATENT WIRE ROPES, NOT MANUFACTURED by the above LICENSEE, are warned that they will be liable to be sued for damages as infringers of Mr. Smith's Patent.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 18.6, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

IMPORTANT TO MINE OWNERS, &c.

GUTTA PERCHA COMPANY—PATENTEES, CITY-ROAD, LONDON.

The GUTTA PERCHA COMPANY beg to bring under the notice of Mine Owners, Manufacturers, &c., the GREAT SAVING, both of time and expense, which is effected by the use of the GUTTA PERCHA PUMP BUCKETS and VALVES. These Buckets may be had of any size or thickness, *without any seam or raised joint*. They are unaffected by acids, alkalies, &c. Cold water will never soften them, and they are, consequently, much more durable than leather, and also cheaper. The most gratifying testimonials have been received from millowners, who have had these Buckets in operation for several months past, without the slightest repairs being required.

GUTTA PERCHA TUBING

Being so remarkable a CONDUCTOR of SOUND, is now being extensively applied for CONVEYING MESSAGES from ONE BUILDING, or PLACE, to ANOTHER. If a Tubing of this material, 1 inch diameter, be carried from the mouth of a mine, or pit, down the shaft, to various parts of the mine (no matter whether a quarter or half a mile distant), an instant communication may be established by means of the whistle, on Whishaw's principle, and a conversation carried on as distinctly as though the parties were but a few feet from each other. When these Tubes are in general use, they will greatly lessen the *loss of life in mines*.

GUTTA PERCHA DRIVING BANDS

Continue to secure a continually increasing demand; they can be had of any size or length. Their durability and strength, permanent contractility and uniformity of substance, their non-susceptibility of injury from contact with oils, grease, acids, alkalie, or water, and the facility with which the only joint required can be made in bands of from 200 to 300 feet long, render them superior for almost all working purposes, and decidedly economical.

GUTTA PERCHA Soles for Boots and Shoes, Bowls, Buckets, Picture Frames, Brackets, Mouldings, Surgical Instruments, Vases, Cups, Inkstands, Balls, &c., may be had at the Company's Works, Wharf-road, City-road, London, or of any of their wholesale dealers in town or country.

Just published,

GEOGRAPHICAL AND MINERALOGICAL NOTES, to ACCOMPANY Mr. WYLD'S MAP of the GOLD REGIONS of CALIFORNIA.

London: Published by James Wyld, Geographer to the Queen and Prince Albert, Charing-cross East, and 2, Royal Exchange; and Simpkin & Marshall, Stationers'-court. Price One Shilling; with Map, Three Shillings.

Under the sanction and patronage of His Royal Highness PRINCE ALBERT, Lord-Warden of the Stannaries, Chief Steward of the Duchy of Cornwall and Devon, &c.

Shortly will be published,

THE MINING ALMANACK FOR 1849: being a Yearly Compendium of Information on General Science; with Statistical Details relating to the Mining Interests of Great Britain. Compiled and arranged by HENRY ENGLISH, Mining Engineer, Editor of the *Mining Journal*, &c.—This work will contain, in addition to Commercial Intelligence with important Statistical and Tabular Matter—Parliamentary and Official Returns from the Mining Districts, made up to the 31st December, 1848—Original Papers on Geology, Mineralogy, Metallurgy, Practical Mining, Engineering, and Mechanics—Abstracts of the Statutes affecting Joint-Stock Companies—A comprehensive Treatise on the Cost-Book System and the Stannaries Courts—Rules applicable to the working of Mines and Collieries—Lists of Members of Scientific Bodies—and other valuable information connected with the various branches of science.—Published at the office of the *Mining Journal, Railway and Commercial Gazette*, 26, Fleet-street.

IMPROVED LIFTING JACKS,

MANUFACTURED BY

W. AND J. GALLOWAY,

PATENT RIVET WORKS,

MANCHESTER.

IMPROVED RATCHET JACK.

HALEY'S PATENT LIFTING JACK.

*** The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

CARNE'S BULL HOTEL, 92, BISHOPSGATE-STREET-WITHIN, LONDON.

GEORGE CARNE, in announcing the REOPENING of this long celebrated HOTEL, which has been newly furnished, painted, and decorated throughout, begs to assure his friends, and strangers visiting the metropolis, that every effort will be used to afford them all the comforts of home. The Sleeping Apartments, to which especial care has been directed, will be found equal to any in London, whilst the following List of Charges will show that every thing is conducted on the most economical scale.

Bed and Breakfast, 3s. per day; Dinner of two courses, and imperial half-pint of wine, at the ordinary, at half-past One, 2s.; private sitting-rooms, from 2s. per day.—Fixed charge for servants.

Porter and female attendant in waiting, for all the trains.

Wines, of the highest quality, drawn from the wood.—Plymouth Gin, and all other spirits, of the purest quality.

N.B.—Mine Agents having *bond fide* valuable Setts to bring before the public, will be introduced to parties likely to advance their interests.

PORTER'S PATENT CORRUGATED IRON BEAMS, GIRDERS, and FIRE-PROOF FLOORS.—These BEAMS and GIRDERS are about 30 per cent. lighter, and 20 per cent. cheaper, than any others of wrought-iron.—The FIRE-PROOF FLOORS, although not more costly than those of cast-iron, with brick arches and concrete, give greater security from fire, with less than one-tenth of the weight.—MANUFACTORY—IRON BUILDING & ROOFING WORKS, SOUTHWARK.

OFFICE—2, ADELAIDE-PLACE, LONDON-BRIDGE, CITY.

PATENT ALKALI COMPANY'S IRON PAINT.—This PAINT is the PRODUCT of a PATENT PROCESS, and possesses PECULIAR and VALUABLE PROPERTIES, not otherwise attainable.

Its colour (as at present produced) is a rich *purple-brown*. It is perfectly free from the deleterious qualities of white lead.

It surpasses all other paints ever yet discovered, in point of *durability* and *economy*.

Two coats of this paint are more than equal to three of any other description.

From its chemical composition, it is pre-eminently adapted for covering *iron*; also *wood*, and *stuccoed*, or *brick buildings*. The process by which the base of this paint is produced, makes it impossible that any change should take place in its composition from atmospheric influence. Its identity with iron secures it from galvanic action, so fatal to the durability of lead and other paints on iron work.

It has been exposed on shipping to the action of sea-water, and of the sulphuretted hydrogen, so prevalent in sea-ports and tidal harbours, for more than three years, without change.—Its *cheapness* and *strength* render it peculiarly suitable for *iron bridges, roofs*, and *railings, farm buildings*, and *shipping*. It will also cover creosoted timber.

Price, by the ton, £25, delivered in London, exclusive of packages.

Agents will be appointed for the principal towns in the United Kingdom; in the mean time, orders may be addressed to the offices of the company, No. 20, Fenchurch-street, London. JOHN A. WEST, Secretary.

PATENT MINERAL PAINT.—After three years' trial on the sides and bottoms of iron and timber-built ships, this PAINT has proved itself equal to copper as a protection from vegetation, as well as the sea-worm and all other adhesive matter. It is also peculiarly adapted for spouts and gutters, iron railing, felt or wooden roofs, tarpaulings, damp walls, or any other surface that requires to be made waterproof at a small cost, and is ready for use, in casks of 2 to 20 gallons.

Brilliant black, 2s. per gallon—Rich brown, 2s. 9s. per gallon.

EMERSON'S PATENT LIQUID CEMENT.—This valuable and economic PAINT is so adhesive, that it will cling to any surface—brick, Roman cement, and all other plastered Work; and, being a rich cream colour, is more pleasing and natural in appearance than oil, and at an *eighth* of the *cost*. It is ready for use, will dry in a few hours, and possesses the property of protecting the walls as well as Roman cement. Sold in casks of 1 cwt. 2 cwts., and 3 cwts., at 8s., 15s., and 21s. per cask. GEO. LEAR & CO., Sole Agents, 16, Basing-lane, Cheapside.

NATIONAL GAS BURNER.—After 18 months' trial, accompanied, in many instances, by severe tests, the result of which has elicited unqualified approbation, the NATIONAL ECONOMIC GAS BURNER stands pre-eminent.

Testimonial from Samuel Clegg, Esq., Consulting Gas Engineer.

I hereby certify, that I have examined the National Economic Gas Burners of Messrs. Paul and Co., London, and find the consumption per hour of cubic feet of gas, at a pressure of 5-10th of an inch to be respectively—No. 0, 4 feet; No. 1, 6 feet; and No. 2, 10 ft.; at the same time the illuminating power is very great, the light remarkably steady, with freedom from smoke or smell of gas, with great purity of light; and, in my opinion, they are decidedly the best patent gas burners in use. SAMUEL CLEGG.

London, Nov. 9, 1848.

May be seen burning, and can be tested by an experimental meter, at the office of PAUL & CO., Gas Engineers and General Gas Fitters, No. 43, Skinner-street, Snow-hill, London.—A detailed Description and Diagram, with testimonials at length, forwarded, post-free, on application.

PLANTAGENET GUARD RAZORS, Manufactured under the authority of LETTERS PATENT GRANTED by HER MAJESTY THE QUEEN, and under the especial Patronage of the Nobility and Gentry, the Army and Navy, the Clergy, the Bar, and the Faculty.

The Razor is made of the finest tempered steel, imparting a matchless smoothness and keenness to the edge; and the addition of the Guard causes the Razor to glide with safety over the face, removing the beard without the possibility of cutting the skin.

Guard Razors are fitted for right-hand and for left-hand shaving exclusively.

Best black handles, per pair, 12s.; single, 6s. Best ivory handles, 16s. per pair; single, 8s.—Sent post-free for 8d. each extra.

A pair of the best Razors, elegantly finished, in a superior Russia box, is a valuable present for a nervous, paralysed, or short-sighted friend—price One Guinea; sent free for 1s. 6d. extra. The Razors are warranted, and will be exchanged if found imperfect. A single Razor, of the same quality and finish, in a neat roan case, sent free for 10s.

C. STEWART & CO., Patentees, removed from 140, Strand, to 22, Charing Cross, London. Post-office orders to be made payable to them at the Charing Cross post-office.

CAUTION.—Every Guard is stamped with the signature of "C. Stewart and Co.," to imitate which is forgery.—A full description of the invention, with testimonials from practical application, sent post-free.

"We have used the Plantagenet Razor, and found shaving to be performed with the greatest freedom and ease, and with perfect safety."—*Mining Journal.*

"Among the most valuable discoveries of modern times."—*Morning Post.*

"To all men a source of comfort."—*Morning Herald.*

"The blind, the nervous, and the invalid can get through the operation of shaving with perfect security."—*Sunday Times.*

"It is literally a fact, that this razor can be used by the operator with perfect security in almost any situation. It can be used in bed, on a railway, or even in a carriage on the common roads. This guarded razor is really a splendid invention."—*Lancet.*

PLANTAGENET RAZOR STROP:—The peculiarity of this strop consists in not yielding to the razor blade, like the ordinary razor strop, but gives that angular sharpness which alone preserves the keenness of the cutting edge.—Prices, 2s. 6d. and 3s. 6d.; sent post-free for 6d. extra.

NEUBER'S IMPROVED LIQUID GLUE—Impervious to DAMP or HEAT, perfectly free from smell, and ready for immediate use, for WOOD, METAL, STONE, MARBLE, IVORY, SLATE, GLASS, CHINA and EARTHENWARE, PLASTER MODELS, PAPER and PASTEBOARD, and various other purposes, this cement will be found a most invaluable acquisition.

Sold by all chemists, oil and colourmen, stationers, &c.; and also at the patentees, Messrs. Neuber and Watkins, Varnish and Japan Manufacturers, 549, New Oxford-street, and 76, Long-acre, where samples may be obtained or forwarded, free, on receipt of 12 postage stamps.—Price, pale, 12s.; dark, 8s., per gall.; and in bottles at 6d., 1s. & 1s. 6d.

All letters, orders, &c., to be directed to 549, New Oxford-street.

Extracts from the London Press.

"For repairing anything short of a 'kingdom out of joint,' or 'a broken constitution,' this improved liquid glue seems quite up to the mark. We have tried it on a china dish, a wooden box, and a meerschaum pipe, with equal satisfactory results."—*Builder.*

"It will not mix with water, is consequently impervious to moisture, and remains quite unaffected in damp situations. It is incombustible, free from the slightest smell, dries quickly after a joint is made with it, and its adhesiveness and tenacity are, under most circumstances, superior to the common glue."—Vide *Mining Journal*, December 9, 1848,

N.B.—Respectable country agents required.

CAUTION.—"One of the most useful articles that can be possessed is Robinson's Patent Liquid Glue."—*Times.* From the acknowledged excellence of ROBINSON'S PATENT LIQUID GLUE, which may now be had in nearly every important town in the kingdom, has arisen numerous spurious imitations. Be particular to ask for Robinson's Patent Liquid Glue—none else is genuine. Neither time nor climate, hot nor cold fluids, affect it.—"It unites permanently severed glass, china, wood, cast-iron, stone, or marble."—*Douglas Jerrold's Weekly Newspaper.* "An extremely valuable addition to the store of domestic requisites."—*Atlas.*

In bottles, price 1s.—Depôt, No. 75, High Holborn, opposite the George and Blue Boar, London; may also be had of Wm. Hobdell, 2, Astey's-row, Lower-road, Islington.

THE PATENT OFFICE AND DESIGNS REGISTRY, *No. 210, STRAND, LONDON.*

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years' experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

London: Printed by RICHARD MIDDLETON, and published by HENRY ENGLISH (the proprietors), at their offices, No. 26, FLEET-STREET, where all communications are requested to be addressed. [*February* 10, 1849.